Dual PNP Bias Resistor Transistors R1 = 47 k\Omega, R2 = 47 k\Omega PNP Transistors with Monolithic Bias Resistor Network

This series of digital transistors is designed to replace a single device and its external resistor bias network. The Bias Resistor Transistor (BRT) contains a single transistor with a monolithic bias network consisting of two resistors; a series base resistor and a base–emitter resistor. The BRT eliminates these individual components by integrating them into a single device. The use of a BRT can reduce both system cost and board space.

Features

- Simplifies Circuit Design
- Reduces Board Space
- Reduces Component Count
- S and NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable*
- These Devices are Pb–Free, Halogen Free/BFR Free and are RoHS Compliant

MAXIMUM RATINGS

(T_A = 25°C, common for Q1 and Q2, unless otherwise noted)

Rating	Symbol	Max	Unit
Collector-Base Voltage	V _{CBO}	50	Vdc
Collector-Emitter Voltage	V _{CEO}	50	Vdc
Collector Current – Continuous	۱ _C	100	mAdc
Input Forward Voltage	V _{IN(fwd)}	40	Vdc
Input Reverse Voltage	V _{IN(rev)}	10	Vdc

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ORDERING INFORMATION

Device	Package	Shipping [†]
MUN5113DW1T1G, SMUN5113DW1T1G*	SOT-363	3,000 / Tape & Reel
NSVMUN5113DW1T3G*	SOT-363	10,000 / Tape & Reel
NSBA144EDXV6T1G	SOT-563	4,000 / Tape & Reel
NSBA144EDXV6T5G	SOT-563	8,000 / Tape & Reel
NSBA144EDP6T5G	SOT-963	8,000 / Tape & Reel

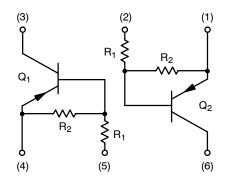
†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.



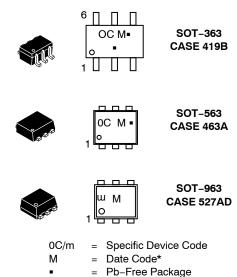
ON Semiconductor®

www.onsemi.com

PIN CONNECTIONS



MARKING DIAGRAMS



(Note: Microdot may be in either location)

Dete Cade existence recurrent des addis a

*Date Code orientation may vary depending upon manufacturing location.

THERMAL CHARACTERISTICS

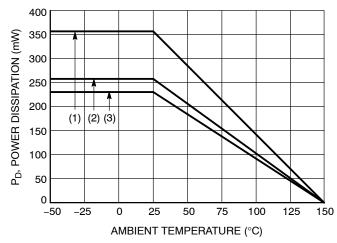
	Characteristic	Symbol	Max	Unit
MUN5113DW1 (SOT-363) One 、	Junction Heated			
Total Device Dissipation $T_A = 25^{\circ}C$ (Note 1) (Note 2) Derate above $25^{\circ}C$ (Note 2)	Note 1)	PD	187 256 1.5 2.0	mW mW/°C
	Note 1) Note 2)	R _{θJA}	670 490	°C/W
MUN5113DW1 (SOT-363) Both	Junction Heated (Note 3)	•		
Total Device Dissipation $T_A = 25^{\circ}C$ (Note 1) (Note 2) Derate above $25^{\circ}C$ (Note 2)	Note 1)	PD	250 385 2.0 3.0	mW mW/°C
, , , , , , , , , , , , , , , , , , , ,	Note 1) Note 2)	R _{θJA}	493 325	°C/W
Thermal Resistance, (N Junction to Lead (Note 2)	Note 1)	R _{θJL}	188 208	°C/W
Junction and Storage Temperatu	ire Range	T _J , T _{stg}	–55 to +150	°C
NSBA144EDXV6 (SOT-563) On	e Junction Heated			
Total Device Dissipation $T_A = 25^{\circ}C$ (Note 1) Derate above 25^{\circ}C (Note 1)	Note 1)	PD	357 2.9	mW mW/°C
Thermal Resistance, Junction to Ambient (N	Note 1)	R _{θJA}	350	°C/W
NSBA144EDXV6 (SOT-563) Bo	th Junction Heated (Note 3)	•		
Total Device Dissipation $T_A = 25^{\circ}C$ (Note 1) Derate above 25^{\circ}C (N	Note 1)	PD	500 4.0	mW mW/°C
Thermal Resistance, Junction to Ambient (N	Note 1)	R _{θJA}	250	°C/W
Junction and Storage Temperatu	ire Range	T _J , T _{stg}	–55 to +150	°C
NSBA144EDP6 (SOT-963) One	Junction Heated			
Total Device Dissipation $T_A = 25^{\circ}C$ (Note 4) (Note 5) Derate above $25^{\circ}C$ (Note 5) (Note 5)	Note 4)	PD	231 269 1.9 2.2	mW mW/°C
	Note 4) Note 5)	R _{θJA}	540 464	°C/W
NSBA144EDP6 (SOT-963) Both	Junction Heated (Note 3)			
Total Device Dissipation $T_A = 25^{\circ}C$ (Note 4) (Note 5) Derate above $25^{\circ}C$ (Note 5)	lote 4)	PD	339 408 2.7 3.3	mW mW/°C
	lote 4) lote 5)	R _{θJA}	369 306	°C/W
Junction and Storage Temperatu	Iro Pango	T _J , T _{stg}	–55 to +150	°C

FR-4 @ Minimum Pad.
 FR-4 @ 1.0 x 1.0 Inch Pad.
 Both junction heated values assume total power is sum of two equally powered channels.
 FR-4 @ 100 mm², 1 oz. copper traces, still air.
 FR-4 @ 500 mm², 1 oz. copper traces, still air.

ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}C$, common for Q_1 and Q_2 , unless otherwise noted)

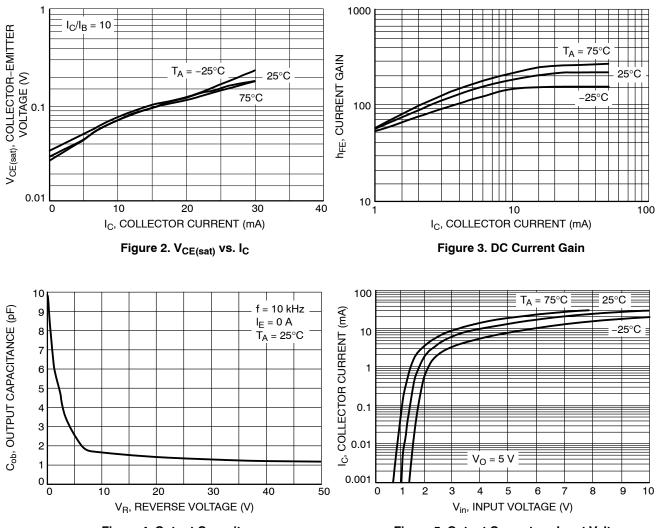
Characteristic	Symbol	Min	Тур	Max	Unit
OFF CHARACTERISTICS			•		
Collector-Base Cutoff Current (V _{CB} = 50 V, I _E = 0)	I _{CBO}	-	_	100	nAdc
Collector–Emitter Cutoff Current $(V_{CE} = 50 \text{ V}, I_B = 0)$	I _{CEO}	-	_	500	nAdc
Emitter-Base Cutoff Current $(V_{EB} = 6.0 \text{ V}, I_C = 0)$	I _{EBO}	-	_	0.1	mAdc
Collector-Base Breakdown Voltage $(I_C = 10 \ \mu A, I_E = 0)$	V _(BR) CBO	50	_	_	Vdc
Collector–Emitter Breakdown Voltage (Note 6) $(I_C = 2.0 \text{ mA}, I_B = 0)$	V _{(BR)CEO}	50	_	-	Vdc
ON CHARACTERISTICS					
DC Current Gain (Note 6) ($I_C = 5.0 \text{ mA}, V_{CE} = 10 \text{ V}$)	h _{FE}	80	140	-	
Collector-Emitter Saturation Voltage (Note 6) $(I_C = 10 \text{ mA}, I_B = 0.3 \text{ mA})$	V _{CE(sat)}	-	_	0.25	Vdc
Input Voltage (off) (V _{CE} = 5.0 V, I _C = 100 μA)	V _{i(off)}	_	1.2	_	Vdc
Input Voltage (on) (V _{CE} = 0.2 V, I _C = 3.0 mA)	V _{i(on)}	-	2.0	-	Vdc
Output Voltage (on) (V _{CC} = 5.0 V, V _B = 3.5 V, R _L = 1.0 k Ω)	V _{OL}	_	_	0.2	Vdc
Output Voltage (off) ($V_{CC} = 5.0 \text{ V}, \text{ V}_{B} = 0.5 \text{ V}, \text{ R}_{L} = 1.0 \text{ k}\Omega$)	V _{OH}	4.9	_	-	Vdc
Input Resistor	R1	32.9	47	61.1	kΩ
Resistor Ratio	R ₁ /R ₂	0.8	1.0	1.2	

6. Pulsed Condition: Pulse Width = 300 msec, Duty Cycle \leq 2%.



(1) SOT-363; 1.0 x 1.0 inch Pad
 (2) SOT-563; Minimum Pad
 (3) SOT-963; 100 mm², 1 oz. copper trace

Figure 1. Derating Curve



TYPICAL CHARACTERISTICS MUN5113DW1, NSBA144EDXV6

Figure 4. Output Capacitance



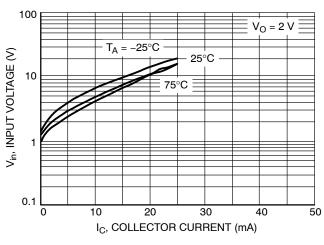


Figure 6. Input Voltage vs. Output Current

TYPICAL CHARACTERISTICS

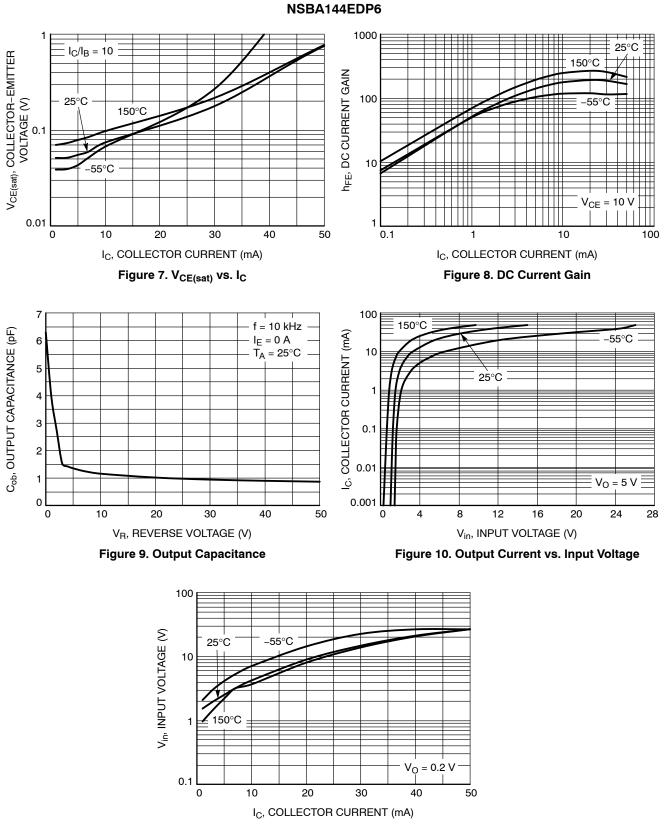
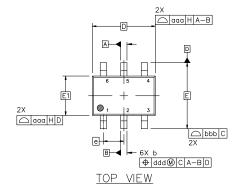


Figure 11. Input Voltage vs. Output Current

SC-88 2.00x1.25x0.90, 0.65P CASE 419B-02 **ISSUE Z**

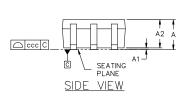
DATE 18 APR 2024

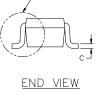
DUSEM



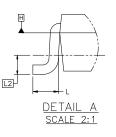
NOTES:

- DIMENSIONING AND TOLERANCING CONFORM TO ASME 1. Y14.5-2018.
- 2.
- ALL DIMENSION ARE IN MILLIMETERS. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.20 3. PER END.
- 4. DIMENSIONS D AND E1 AT THE OUTERMOST EXTREMES OF DATUMS A AND B ARE DETERMINED AT DATUM H.
- 5.
- DIMENSIONS & AND C APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.08 AND 0.15 FROM THE TIP. 6.
- DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. 7 ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08 TOTAL IN EXCESS OF DIMENSION & AT MAXIMUM MATERIAL CONDITION. THE DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OF THE FOOT.

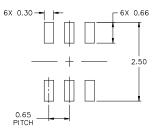




DETAIL A



	MI	LLIMETER	S		
DIM	MIN. NOM. MAX.				
A			1.10		
A1	0.00		0.10		
A2	0.70	0.90	1.00		
b	0.15	0.20	0.25		
с	0.08	0.15	0.22		
D	2.00 BSC				
E	2.10 BSC				
E1	1.25 BSC				
е		0.65 BSC)		
L	0.26	0.36	0.46		
L2		0.15 BSC			
aaa	0.15				
bbb	0.30				
ccc	0.10				
ddd		0.10			



RECOMMENDED MOUNTING FOOTPRINT*

FOR ADDITIONAL INFORMATION ON OUR Pb-FREE STRATEGY AND SOLDERING DETAILS, PLEASE DOWNLOAD THE ONSEMI SOLDERING AND MOUNTING TECHNIQUES REFERENCE MANUAL, SOLDERRM/D.

XXX = Specific Device Code = Date Code* Μ

GENERIC **MARKING DIAGRAM***

XXXM-

0

6

= Pb-Free Package

(Note: Microdot may be in either location)

*Date Code orientation and/or position may vary depending upon manufacturing location.

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "•", may or may not be present. Some products may not follow the Generic Marking.

STYLES ON PAGE 2

DOCUMENT NUMBER:	98ASB42985B	Electronic versions are uncontrolled except when accessed directly from the Document Repositor Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.			
DESCRIPTION: SC-88 2.00x1.25x0.90, 0.65P PAGE					
onsemi and ONSEMI are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.					

SC-88 2.00x1.25x0.90, 0.65P CASE 419B-02 ISSUE Z

DATE 18 APR 2024

STYLE 1: PIN 1. EMITTER 2 2. BASE 2 3. COLLECTOR 1 4. EMITTER 1 5. BASE 1 6. COLLECTOR 2	STYLE 2: CANCELLED	STYLE 3: CANCELLED	STYLE 4: PIN 1. CATHODE 2. CATHODE 3. COLLECTOR 4. EMITTER 5. BASE 6. ANODE	STYLE 5: PIN 1. ANODE 2. ANODE 3. COLLECTOR 4. EMITTER 5. BASE 6. CATHODE	STYLE 6: PIN 1. ANODE 2 2. N/C 3. CATHODE 1 4. ANODE 1 5. N/C 6. CATHODE 2
STYLE 7: PIN 1. SOURCE 2 2. DRAIN 2 3. GATE 1 4. SOURCE 1 5. DRAIN 1 6. GATE 2	STYLE 8: CANCELLED	STYLE 9: PIN 1. EMITTER 2 2. EMITTER 1 3. COLLECTOR 1 4. BASE 1 5. BASE 2 6. COLLECTOR 2	STYLE 10: PIN 1. SOURCE 2 2. SOURCE 1 3. GATE 1 4. DRAIN 1 5. DRAIN 2 6. GATE 2	STYLE 11: PIN 1. CATHODE 2 2. CATHODE 2 3. ANODE 1 4. CATHODE 1 5. CATHODE 1 6. ANODE 2	STYLE 12: PIN 1. ANODE 2 2. ANODE 2 3. CATHODE 1 4. ANODE 1 5. ANODE 1 6. CATHODE 2
STYLE 13:	STYLE 14:	STYLE 15:	STYLE 16:	STYLE 17:	STYLE 18:
PIN 1. ANODE	PIN 1. VREF	PIN 1. ANODE 1	PIN 1. BASE 1	PIN 1. BASE 1	PIN 1. VIN1
2. N/C	2. GND	2. ANODE 2	2. EMITTER 2	2. EMITTER 1	2. VCC
3. COLLECTOR	3. GND	3. ANODE 3	3. COLLECTOR 2	3. COLLECTOR 2	3. VOUT2
4. EMITTER	4. IOUT	4. CATHODE 3	4. BASE 2	4. BASE 2	4. VIN2
5. BASE	5. VEN	5. CATHODE 2	5. EMITTER 1	5. EMITTER 2	5. GND
6. CATHODE	6. VCC	6. CATHODE 1	6. COLLECTOR 1	6. COLLECTOR 1	6. VOUT1
STYLE 19:	STYLE 20:	STYLE 21:	STYLE 22:	STYLE 23:	STYLE 24:
PIN 1. I OUT	PIN 1. COLLECTOR	PIN 1. ANODE 1	PIN 1. D1 (i)	PIN 1. Vn	PIN 1. CATHODE
2. GND	2. COLLECTOR	2. N/C	2. GND	2. CH1	2. ANODE
3. GND	3. BASE	3. ANODE 2	3. D2 (i)	3. Vp	3. CATHODE
4. V CC	4. EMITTER	4. CATHODE 2	4. D2 (c)	4. N/C	4. CATHODE
5. V EN	5. COLLECTOR	5. N/C	5. VBUS	5. CH2	5. CATHODE
6. V REF	6. COLLECTOR	6. CATHODE 1	6. D1 (c)	6. N/C	6. CATHODE
STYLE 25:	STYLE 26:	STYLE 27:	STYLE 28:	STYLE 29:	STYLE 30:
PIN 1. BASE 1	PIN 1. SOURCE 1	PIN 1. BASE 2	PIN 1. DRAIN	PIN 1. ANODE	PIN 1. SOURCE 1
2. CATHODE	2. GATE 1	2. BASE 1	2. DRAIN	2. ANODE	2. DRAIN 2
3. COLLECTOR 2	3. DRAIN 2	3. COLLECTOR 1	3. GATE	3. COLLECTOR	3. DRAIN 2
4. BASE 2	4. SOURCE 2	4. EMITTER 1	4. SOURCE	4. EMITTER	4. SOURCE 2
5. EMITTER	5. GATE 2	5. EMITTER 2	5. DRAIN	5. BASE/ANODE	5. GATE 1
6. COLLECTOR 1	6. DRAIN 1	6. COLLECTOR 2	6. DRAIN	6. CATHODE	6. DRAIN 1

Note: Please refer to datasheet for style callout. If style type is not called out in the datasheet refer to the device datasheet pinout or pin assignment.

DOCUMENT NUMBER:	98ASB42985B	Electronic versions are uncontrolled except when accessed directly from the Document Reposito Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.				
DESCRIPTION: SC-88 2.00x1.25x0.90, 0.65P PA			PAGE 2 OF 2			
the right to make changes without furth purpose, nor does onsemi assume a	onsemi and ONSEMi are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights or other rights of others.					

© Semiconductor Components Industries, LLC, 2019

MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS



ONSEMI

DATE 15 FEB 2024 NTES 1.1 ENDESCONG AND TOLERANCING CONFORM TO ASME 1.2 ENDESCONG AND TOLERANCING CONFORMATION TOLERANCING 2. ENDESCONG AND TOLERANCING CONFORMATION TOLERANCING 2. ENDESCONG AND TOLERANCING CONFORMATION TOLERANCING 2. ENDESCONG AND TOLERANCING TOLERANCING TOLERANCING TOLERANCING 2. ENDESCONG AND TOLERANCING TOLERANCING TOLERANCING 2. ENDESCONG AND TOLERANCING TOLERANCING TOLERANCING TOLERANCING TOLERANCING TOLERANCING TOLERANCING 2. ENDESCONG AND TOLERANCING TOLERANCING 2. ENDESCONG AND TOLERANCING TOLERANCING TOLERANCING TOLERANCI				ISSUE J				
 1. DIMENSIONING AND TOLERANDING CONFORM TO ASME 14.5-2018. ALL DIMENSION ARE IN MULLIMETERS. ANAXIMUM LEAD THICKNESS IS INCLUDES LEAD FINISH HICKNESS MINIKUM LEAD THICKNESS IS THE MINIMUM HICKNESS MINIMUM LEAD THICKNESS IS THE MINIMUM THE MINIMUM THE MINIMUM THE MINIMUM THE MINIMUM THE MINIMUM HICKNESS MINIMUM LEAD THICKNESS IS THE MINIMUM THE MINI				100020			DA	TE 15 FEB 2024
 Y14.5-2018. ALL DIKINSION ARE IN MILLIMETERS. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. THICKNESS OF BASE MATERIAL. THIC				NOTES:				
 2. ALL DIMÉNSION ARE. IN MILLIMETERS. 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS OF BASE MATERIAL. 3. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 4. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 4. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 4. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 5. MAXIMUM LEAD THICKNESS OF BASE MATERIAL. 5.						RANCING	CONFORM	M TO ASME
THICKNESS MINIMUM LEAD THICKNESS IS THE MINIMUM HICKNESS OF BASE MATERIAL. THICKNESS OF BASE AND THE						MILLIMET	ERS.	
PIN 1 PIN 1 <td< th=""><th></th><th></th><th></th><th>THICKNESS</th><th>. MINIMUM LEA</th><th>AD THICK</th><th></th><th></th></td<>				THICKNESS	. MINIMUM LEA	AD THICK		
PIN 1 FIN 1 <th< th=""><th>-</th><th>D</th><th>A -</th><th> - − 6X </th><th>DIM</th><th>М</th><th>ILLIMETE</th><th>RS</th></th<>	-	D	A -	 - − 6X	DIM	М	ILLIMETE	RS
PIN 1 0 <th></th> <th>B</th> <th></th> <th></th> <th></th> <th>MIN.</th> <th>NDM.</th> <th>MAX.</th>		B				MIN.	NDM.	MAX.
PIN 1 Image: Construction of the second schedule schedule of the second schedule of the sec					А	0.50	0.55	0.60
C 0.08 0.13 0.18 D D 0.10 1.20 1.30 D D 0.10 0.20 0.30 PIN 1 EMTTRE 1 STYLE 3 FIVE 4 0.10 0.20 0.30 STYLE 1 PIN 1 EMTTRE 1 STYLE 3 AMDE 4 0.30 0.30 0.30 0.30 J AMDE 5 SASE 1 SAME 7 SAME 7 <th></th> <th>•</th> <th></th> <th></th> <th>b</th> <th>0.17</th> <th>0.22</th> <th>0.27</th>		•			b	0.17	0.22	0.27
STYLE I: TOP VIEW STYLE 3: TOP VIEW STYLE 3: SIDE VIEW D 1.50 1.60 1.70 STYLE I: TOP VIEW SIDE VIEW SIDE VIEW D 1.50 1.60 1.70 STYLE I: TOP VIEW SIDE VIEW SIDE VIEW D 1.50 1.60 1.70 STYLE I: TOP VIEW STYLE 3: SIDE VIEW SIDE VIEW D 1.50 1.60 1.70 STYLE I: TOP VIEW STYLE 3: SIDE VIEW SIDE VIEW D 1.50 1.60 1.70 STYLE 1: SIDE VIEW SIDE VIEW SIDE VIEW D 0.30	REFERENCE				C	80.0	0.13	0.18
STYLE 1: TOP_WEW SIDE_VIEW Image: Construct of the second se	الک ب				D	1.50	1.60	1.70
Image: Style is top: WEW SIDE VIEW Image: Side VIEW STYLE is top: WEW SIDE VIEW Image: Side VIEW STYLE is top: WEW SIDE VIEW Image: Side VIEW STYLE is top: WEW SIDE VIEW Image: Side VIEW STYLE is top: WEW SIDE VIEW Image: Side VIEW STYLE is top: WEW SIDE VIEW Image: Side VIEW STYLE is top: Side VIEW SIDE VIEW Image: Side VIEW STYLE is top: Side VIEW SIDE VIEW Image: Side VIEW STYLE is top: Side VIEW SIDE VIEW Image: Side VIEW STYLE is top: Side VIEW SIDE VIEW Image: Side VIEW STYLE is top: Side VIEW Side VIEW Side VIEW STYLE 4: STYLE 5: STYLE 5: STYLE 6: SIDE VIEW STYLE 6: Side VIEW STYLE 4: SIDE VIEW SIDE VIEW Side VIEW SIDE VIEW SIDE Cathodic 2: Contribute Side VIEW SIDE Cathodic 2: Contribute Side VIEW Side VIEW STYLE 4: STYLE 5: STYLE 6: SIDE VIEW Side VIEW Side VIEW SIDE VIEW Side VIEW Side VIEW Side VIEW Side Cathodic 2: Contribute Side VIEW Side VIEW	L				E	1.10	1.20	1.30
TOP VIEW SIDE VIEW TOP VIEW SIDE VIEW TOP VIEW SIDE VIEW TOP VIEW SIDE VIEW STATUSE 1 STYLE 2: PIN 1 EMITTER 1 PIN 1 EMITTER 1 2 BASE 2 STATUSE 1: 3 BASE 2 S BASE 1: 3 BASE 2 S BASE 1: 4 MUTTER 2 STYLE 5: 5 COLLECTOR 1: CATHODE 2: 4 COLLECTOR 1: CATHODE 2: 4 COLLECTOR 1: CATHODE 2: 3 BASE 2: S BASE 1: 5 COLLECTOR 1: CATHODE 2: 4 COLLECTOR 1: CATHODE 2: 4 COLLECTOR 1: CATHODE 2: 4 COLLECTOR 2: CATHODE 2: 5 COLLECTOR 1: CATHODE 2: 6 COLLECTOR 2: CATHODE 3: 7 COLLECTOR 2: CATHODE 3: 8 COLLECTOR 2: CATHODE 3: 9 COLLECTOR 4: STYLE 5: 9 COLLECTOR 5: STYLE 6: 1: CATHODE 3: 2: CATHODE 3: 3: CATHODE 3: 4: ANDE 4: CATHODE 3: 5: COLLECTOR 6: 6: CATHODE 3: 6: CATHODE 3: 6: CATHODE 4:				℃ ─► ┝━─	e		0.50 BSC	
STYLE 1: STYLE 2: STYLE 3: PIN 1: EMITTER 1 PIN 1: EMITTER 1 PIN 1: CATHODE 1 2: BASE 1 2: CATHODE 1 2: CATHODE 2 3: COLLECTOR 2 4: CATHODE 2 4: CATHODE 2 4: EMITTER 2 4: CATHODE 2 4: CATHODE 2 5: BASE 2 5: BASE 1 5: CATHODE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDE/ANDDE 2 7: STYLE 4: STYLE 5: STYLE 6: 9: N 1: CATHODE 2: CATHODE 2: 2: COLLECTOR 1 6: COLLECTOR 2 3: BASE 2: 3: ANDE 3: COLLECTOR 1 6: COLLECTOR 1 4: EMITTER 3: STYLE 5: 5: COLLECTOR 1 6: CATHODE 2: 6: COLLECTOR 3: CATHODE 2: 7: COLLECTOR 3: CATHODE 4: 8: COLLECTOR 3: CATHODE 4: 9: N 1: CATHODE 4: STYLE 9: 9: N 1: CATHODE 4: STYLE 9: 10: 1 CATHODE 4: 10: 1 CATHODE 5: 2: ANDDE CATHODE 4: 3: CATHODE 4: CATHODE 5: 3: CATHODE 5: CATHODE 5: 3: CATHODE 6:<					н	1.50	1.60	1.70
STYLE i STYLE 2: STYLE 3: PIN 1. EMITTER 1 PIN 1. EMITTER 2 STYLE 3: 3. COLLECTOR 2 3. BASE 2 3. ANDE/ANDE 2 4. EMITTER 2 3. BASE 2 3. ANDE/ANDE 2 5. BASE 2 5. BASE 1 5. CATHODE 2 5. BASE 2 5. BASE 1 5. CATHODE 2 6. COLLECTOR 2 3. BASE 1 5. CATHODE 2 7. COLLECTOR 2 3. BASE 1 5. CATHODE 2 8. STYLE 5: STYLE 5: STYLE 6: PIN 1. CATHODE 2 2. CATHODE 2 2. CATHODE 2 3. COLLECTOR 2 3. ANDDE 3. CATHODE 2 3. CATHODE 2 4. EMITTER 4 STYLE 5: STYLE 6: PIN 1. CATHODE 3. CATHODE 4. CATHODE 2 3. CATHODE 3. CATHODE 5. CATHODE 4. CATHODE 4. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. GATE 2 3. DRAIN 2 3. CATHODE 3. CATHODE 3. CATHODE 5. DRAIN 5. GATE 2 3. DRAIN 2 GATE 1 3. ANDDE 4. SDURCE 4. SDURCE 1 3. DRAIN 2 CATHODE 5. DRAIN 5. GATE 2 5. ANDDE 5. DRAIN 5. GATE 2 3. CATHODE 5. DRAIN 5. GATE 2 CATHODE 5. DRAIN 5. GATE 2 6. ANDDE 1 PIN 1. EMITTER 1 DRAIN 1. SDURCE 1 7. NC 2 S DRASE 1					L	0.10	0.20	0.30
STYLE i STYLE 2: STYLE 3: PIN 1. EMITTER 1 PIN 1. EMITTER 2 STYLE 3: 3. COLLECTOR 2 3. BASE 2 3. ANDE/ANDE 2 4. EMITTER 2 3. BASE 2 3. ANDE/ANDE 2 5. BASE 2 5. BASE 1 5. CATHODE 2 5. BASE 2 5. BASE 1 5. CATHODE 2 6. COLLECTOR 2 3. BASE 1 5. CATHODE 2 7. COLLECTOR 2 3. BASE 1 5. CATHODE 2 8. STYLE 5: STYLE 5: STYLE 6: PIN 1. CATHODE 2 2. CATHODE 2 2. CATHODE 2 3. COLLECTOR 2 3. ANDDE 3. CATHODE 2 3. CATHODE 2 4. EMITTER 4 STYLE 5: STYLE 6: PIN 1. CATHODE 3. CATHODE 4. CATHODE 2 3. CATHODE 3. CATHODE 5. CATHODE 4. CATHODE 4. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. GATE 2 3. DRAIN 2 3. CATHODE 3. CATHODE 3. CATHODE 5. DRAIN 5. GATE 2 3. DRAIN 2 GATE 1 3. ANDDE 4. SDURCE 4. SDURCE 1 3. DRAIN 2 CATHODE 5. DRAIN 5. GATE 2 5. ANDDE 5. DRAIN 5. GATE 2 3. CATHODE 5. DRAIN 5. GATE 2 CATHODE 5. DRAIN 5. GATE 2 6. ANDDE 1 PIN 1. EMITTER 1 DRAIN 1. SDURCE 1 7. NC 2 S DRASE 1						- 170	- 1	
STYLE 1: STYLE 2: STYLE 3: PIN 1: ENITTER 1 2: EMITTER 1 2: EMITTER 1 2: BASE 1 3: BASE 2 3: ANDE/ANDDE 2 4: EMITTER 2 4: COLLECTOR 2 4: CATHODE 1 3: COLLECTOR 1 6: COLLECTOR 1 6: ANDE/ANDDE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDDE/ANDDE 1 8: SASE 2: 5: SASE 1: 5: CATHODE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDDE/ANDDE 1 8: CATHODE 2: CATHODE 2: 2: COLLECTOR 2: CATHODE 2: 3: CATHODE 2: CATHODE 2: 4: EMITTER 4: STYLE 5: PIN 1: CATHODE 2: CATHODE 2: 4: EMITTER 4: CATHODE 2: 5: COLLECTOR 2: CATHODE 3: 6: COLLECTOR 6: CATHODE 4: 7: TYLE 7: STYLE 8: 9: TYLE 7: STYLE 8: 9: TYLE 7: STYLE 8: 9: CALLECTOR 6: CATHODE 2: 3: ANDE 6: SURAIN 2: 4: CATHODE 1: SURAIN 2: 5: ANDE 2: SURAIN 2: 6: CATHODE 1: SURAIN 2: 6: CATHODE 2					0.30			< 0.45
STYLE 1: STYLE 2: STYLE 3: PIN 1: ENITTER 1 2: EMITTER 1 2: EMITTER 1 2: BASE 1 3: BASE 2 3: ANDE/ANDDE 2 4: EMITTER 2 4: COLLECTOR 2 4: CATHODE 1 3: COLLECTOR 1 6: COLLECTOR 1 6: ANDE/ANDDE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDDE/ANDDE 1 8: SASE 2: 5: SASE 1: 5: CATHODE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDDE/ANDDE 1 8: CATHODE 2: CATHODE 2: 2: COLLECTOR 2: CATHODE 2: 3: CATHODE 2: CATHODE 2: 4: EMITTER 4: STYLE 5: PIN 1: CATHODE 2: CATHODE 2: 4: EMITTER 4: CATHODE 2: 5: COLLECTOR 2: CATHODE 3: 6: COLLECTOR 6: CATHODE 4: 7: TYLE 7: STYLE 8: 9: TYLE 7: STYLE 8: 9: TYLE 7: STYLE 8: 9: CALLECTOR 6: CATHODE 2: 3: ANDE 6: SURAIN 2: 4: CATHODE 1: SURAIN 2: 5: ANDE 2: SURAIN 2: 6: CATHODE 1: SURAIN 2: 6: CATHODE 2					T T	ti dh i	┼┤──┸	
STYLE 1: STYLE 2: STYLE 3: PIN 1: ENITTER 1 2: EMITTER 1 2: EMITTER 1 2: BASE 1 3: BASE 2 3: ANDE/ANDDE 2 4: EMITTER 2 4: COLLECTOR 2 4: CATHODE 1 3: COLLECTOR 1 6: COLLECTOR 1 6: ANDE/ANDDE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDDE/ANDDE 1 8: SASE 2: 5: SASE 1: 5: CATHODE 2 6: COLLECTOR 1 6: COLLECTOR 1 6: ANDDE/ANDDE 1 8: CATHODE 2: CATHODE 2: 2: COLLECTOR 2: CATHODE 2: 3: CATHODE 2: CATHODE 2: 4: EMITTER 4: STYLE 5: PIN 1: CATHODE 2: CATHODE 2: 4: EMITTER 4: CATHODE 2: 5: COLLECTOR 2: CATHODE 3: 6: COLLECTOR 6: CATHODE 4: 7: TYLE 7: STYLE 8: 9: TYLE 7: STYLE 8: 9: TYLE 7: STYLE 8: 9: CALLECTOR 6: CATHODE 2: 3: ANDE 6: SURAIN 2: 4: CATHODE 1: SURAIN 2: 5: ANDE 2: SURAIN 2: 6: CATHODE 1: SURAIN 2: 6: CATHODE 2						τμτ		
PIN I. EMITTER 1 2. BASE 1 2. CATHODE 1 2. CATHODE 1 2. CATHODE 2 3. COLLECTOR 2 4. CATHOLECTOR 2 5. BASE 2 5. BASE 2 5. BASE 1 6. COLLECTOR 1 6. COLLECTOR 1 6. COLLECTOR 1 7. CALLECTOR 2 5. BASE 2 5. BASE 2 5. BASE 1 6. COLLECTOR 1 6. COLLECTOR 1 7. CALLECTOR 2 7. CALLECTOR 3 7. CALLECTOR 3 7. CALLECTOR 3 7. CALLECTOR 4 7. CALLECTOR 4 7. CALLECTOR 5 7. CALLECTOR 7 7. CALLECTOR 5 7. CALLECTOR 7 7.					1.80		I	
3. CULLECTOR 2 3. BASE 2 3. ANDDE/ANDDE 2 4. EMITTER 2 4. CATHODE 2 4. CATHODE 2 5. BASE 2 5. BASE 1 5. CATHODE 2 6. COLLECTOR 1 6. COLLECTOR 1 6. ANDDE/ANDDE 1 RECOMMENDED MOUNTING FOOTPRINT* STYLE 4: PIN 1. CATHODE 2. CATHODE 2. COLLECTOR 2 3. ANDDE 3. BASE 2 3. ANDDE 3. BASE 2 5. CATHODE 2. COLLECTOR 2 2. CATHODE 3. BASE 3 ANDDE 3. BASE 4 4. ANDDE 4. EMITTER 4 STYLE 6: 9. COLLECTOR 5. CATHODE 3. CATHODE 2 3. BASE 4 4. ANDDE 4 4. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 6. CATHODE 6. CATHODE 6. CATHODE 7. COLDERING TECHNIQUES REFERENCE MANUAL, SOLDERING TOR SOLDERING TOR SOLDERING AND MOUNTING TECHNICE REVIEW MANUAL, SOLDERING MANUAL, SOLDERING POLYDALL, SOLDERING MANUAL, SOLDERING MANUAL, SOLDERING MANUAL, SOLDERING MANUAL, SOLDERING DIAGRAM* YILE 7: STYLE 8: STYLE 9: 9. NAIDE 2 3. GATE 2 SOLRCE 2 3. CATHODE 3. CATHODE 4. SDURCE 4. SDURCE 2 SOLARIN 6. DRAIN 1 3. CATHODE 5. DRAIN 6. DRAIN 1 SOLECTOR 1 <td< th=""><th></th><th></th><th></th><th>E 1</th><th></th><th></th><th>+-</th><th></th></td<>				E 1			+-	
5. BASE 2 5. BASE 1 5. CATHIDE 2 0.30 6. COLLECTOR 1 6. COLLECTOR 1 6. ANDE/ANDDE 1 RECOMMENDED MOUNTING FOOTPRINT* STYLE 4: STYLE 5: STYLE 6: PIN 1. CATHIDDE PIN 1. CATHIDDE 2. COLLECTOR 2. CATHIDDE 2. CATHIDDE 3. BASE 3. ANDDE 3. BASE 3. ANDDE 3. CATHIDDE 3. CATHIDDE 5. CATHIDDE 4. EMITTER 4. ANDDE 4. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. COLLECTOR 5. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. COLLECTOR 6. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. COLLECTOR 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 2. ANDDE 2. DRAIN 2. GATE 1 2. MANDA MARKING DIAGRAM* STYLE 7: STYLE 8: STYLE 9: MARKING DIAGRAM* MARKING DIAGRAM* 2. ANDDE 2. DRAIN 3. DRAIN 1 2. GATE 2 MARKING DIAGRAM* 3. CATHIDDE 3. DRAIN 5. DIRCE 1 XX = Specific Device Code M = Month Code 4. CATHIDDE 1 FIN 1. EMITTER 2						╧╋╴		
STYLE 4: STYLE 5: STYLE 6: * FOR ADDITIONAL INFORMATION ON OUR Pb-FREE PIN 1. CATHIDDE PIN 1. CATHIDDE 2. CATHIDDE 2. CATHIDDE 3. CATHIDDE 3. BASE 3. ANDDE 3. CATHIDDE 3. CATHIDDE 4. CATHIDDE 4. CATHIDDE 5. COLLECTOR 5. CATHIDDE 4. CATHIDDE 4. CATHIDDE 5. CATHIDDE 5. CATHIDDE 6. COLLECTOR 6. CATHIDDE 5. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 7. CATHIDDE 8. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 8. ANDDE 9. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 8. ANDDE 2. DRAIN 2. GATE 1 3. DRAIN 2 6. CATHIDDE 6. CATHIDDE 2. ANDDE 3. DRAIN 5. GATE 2 3. CATHIDE XX = Specific Device Code M M = Month Code • = D-Free Package STYLE 10: STYLE 11: FTHIS INFORMATION IS generic. Please refer to 9. N/C 2. BASE 2 3. CATHIDDE 9. COLLECTUR 1 4. ANDDE 1 9. ASEE 1 0. CATHIDE PD-Free indicat						′ / 		
STYLE 4: STYLE 5: STYLE 6: * FOR ADDITIONAL INFORMATION ON OUR Pb-FREE PIN 1. CATHIDDE 2. CATHIDDE 2. ANIDDE 3. BASE 3. ANDDE 3. CATHIDDE 3. BASE 3. ANDDE 3. CATHIDDE 3. CATHIDDE 3. CATHIDDE 3. CATHIDDE 4. EMITTER 4. ANDDE 4. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. CATHIDDE 5. COLLECTOR 6. CATHIDDE 5. CATHIDDE 5. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. COLLECTOR 6. CATHIDDE 5. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 3. CATHIDDE 3. CATHIDDE 3. CATHIDDE 6. CATHIDDE 6. CATHIDDE 6. CATHIDDE 3. CATHIDDE 3. GATE 3. DRAIN 2. GATE 1 3. DRAIN 2 4. CATHIDDE 4. SDURCE 2. ANDICE 3. CATHIDDE 4. CATHIDDE 5. GATE 2 3. DRAIN 1 XX = Specific Device Code M = Month Code - = Pb-Free Package STYLE 10' STYLE 11' FIN 1. CATHIDE 2. BASE 2 3. CATHIDDE *This information is generic. Plase refer to device data sheet for actual part marking. 2. N/C 3. CATHIDDE 2 3. CATH	6. COLLECTOR 1	6. COLLECTOR 1	6. ANDDE/	ANDDE 1				
PIN 1. COLLECTOR PIN 1. CATHODE PIN 1. CATHODE 2. ANDDE 3. ANDDE 3. CATHODE 3. ANDDE 3. CATHODE 4. CATHODE 4. CATHODE 4. CATHODE 4. CATHODE 4. CATHODE 4. CATHODE 6. CATHODE 6. CATHODE 6. CATHODE 6. CATHODE 4. CATHODE 6. CA					RECOMMENDE	ED MOUN	TING FOO	TPRINT*
2. CULLECTUR 2. CAIHUDE 2. ANUDE 3. CATHODE 4. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 5. CATHODE 6. CATHODE 6. CATHODE 6. CATHODE 6. CATHODE 6. CATHODE 7. CATHODE	PIN 1. COLLECTOR	PIN 1. CATHODE	PIN 1. CATHODE	* F(
4. EMITTER 4. ANDDE 4. CATHEDE MANUAL, SOLDERRM/D. 5. COLLECTOR 6. CATHEDE 5. CATHEDE GENERIC 6. COLLECTOR 6. CATHEDE 6. CATHEDE MARKING DIAGRAM* STYLE 7: STYLE 8: STYLE 9: MARKING DIAGRAM* PIN 1. CATHEDE 2. DRAIN 2. GATE 3. DRAIN 2 3. CATHEDE 3. GATE 3. DRAIN 2 1 4. CATHEDE 4. SDURCE 4. SDURCE 2 1 5. ANDDE 5. DRAIN 5. GATE 2 XX = Specific Device Code M = Month Code • = Pb-Free Package STYLE 10: STYLE 11: XX = Specific Device Code PIN 1. CATHEDE 1. DEMITTER 2 *This information is generic. Please refer to 2. N/C 2. BASE 2 device data sheet for actual part marking. 3. CATHEDE 1 PIN 1. EMITTER 1 or may not be present. Some products may 3. CATHEDE 2 4. EMITTER 1 or may not be present. Some products may 3. N/C 5. BASE 1 or may not be present. Some products may 4. ANDDE 2 4. EMITTER 1 or may not be present. Some products may 5. N/C 5. BASE 1	3. BASE	3. ANDDE	3. CATHOD	Ł	OWNLOAD THE	ON SEMIC	ONDUCTOR	SOLDERING
GENERIC MARKING DIAGRAM* STYLE 7: STYLE 8: STYLE 9: PIN 1. CATHODE PIN 1. DRAIN PIN 1. SDURCE 1 2. ANDDE 2. DRAIN 2. GATE 1 3. CATHODE 3. GATE 3. DRAIN 2 4. CATHODE 4. SDURCE 4. SDURCE 4. SDURCE 2 5. ANDDE 5. DRAIN 5. GATE 2 6. CATHODE 6. DRAIN 6. DRAIN 1 7 File * Style 10: 8. STYLE 10: STYLE 11: * = Pb-Free Package STYLE 10: STYLE 11: PIN 1. CATHODE 1 PIN 1. EMITTER 2 2. N/C 2. BASE 2 3. CATHODE 2 3. COLLECTOR 1 9. N/C 3. CALLECTOR 1 4. ANDDE 2 4. EMITTER 1 5. N/C SASE 1 6. ANDDE 1 6. COLLECTOR 2 9. N/C SASE 1 6. ANDDE 1 6. COLLECTOR 2 9. N/C SASE 1 6. ANDDE 1 6. COLLECTOR 2 9. N/C SASE 1 6. ANDDE 1 6. COLLECTOR 2 9. ONTROLECTOR 2 NOT 5. SASE 1 6. A	5. COLLECTOR	5. CATHODE	5. CATHOD	E				
STYLE 7: STYLE 8: STYLE 9: PIN 1. CATHIDDE PIN 1. DRAIN PIN 1. SDURCE 1 2. ANDDE 2. DRAIN 2. GATE 1 3. CATHIDDE 3. GATE 3. DRAIN 2 4. CATHIDDE 4. SDURCE 4. SDURCE 5. ANDDE 5. DRAIN 5. GATE 2 6. CATHIDDE 6. DRAIN 6. DRAIN 1 XXX = Specific Device Code M = Month Code • = Pb-Free Package STYLE 10: STYLE 11: PIN 1. CATHIDDE 1 PIN 1. EMITTER 2 3. CATHIDDE 2 3. COLLECTOR 1 9. N/C 2. BASE 2 3. CATHIDDE 2 3. COLLECTOR 1 9. N/C 5. BASE 1 6. ANIDDE 1 6. COLLECTOR 2 9. N/C 5. BASE 1 6. ANIDDE 1 6. COLLECTOR 2 DOCUMENT NUMBER: 98AON11126D	6. COLLECTOR	6. CATHODE	6. CATHOD	E		GENER	C	
PIN 1. CATHIDE PIN 1. DRAIN PIN 1. SDURCE 1 2. ANDDE 2. DRAIN 2. GATE 1 3. CATHIDDE 3. GATE 3. DRAIN 2 4. CATHIDDE 4. SDURCE 4. SDURCE 2 5. ANDDE 5. DRAIN 5. GATE 2 6. CATHIDDE 6. DRAIN 6. DRAIN 7 6. DRAIN 6. DRAIN 8. CATHIDDE 6. DRAIN 6. DRAIN 9. OLATHIDE 6. DRAIN 6. DRAIN 9. CATHIDDE 6. DRAIN 6. DRAIN 9. CATHIDDE 1. EMITTER 2 XX = Specific Device Code M = Month Code = 9. N/C 2. BASE 2 device data sheet for actual part marking. 3. CATHIDDE 2 3. COLLECTOR 1 Pb-Free indicator, "G" or microdot "•", may 4. ANDDE 2 4. EMITTER 1 or may not be present. Some products may 5. N/C 5. BASE 1 or may not be present. Some products may 6. ANDDE 1 6. COLLECTOR 2 Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red. <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th>							-	
3. CATHIDE 4. CATHIDE 5. ANDDE 5. ANDDE 6. DRAIN 5. GATE 2 5. ANDDE 6. DRAIN 6. DRAIN 5. GATE 2 5. ANDDE 6. DRAIN 6. DRAIN 7. STYLE 10: 7. N/C 7. SASE 2 7. CATHIDE 7. N/C 7. SASE 2 7. CATHIDE 7. N/C 7. SASE 2 7. CATHIDE 7. N/C 7. SASE 2 7. CATHIDE 7. N/C 7. SASE 1 7. COLLECTOR 7.	PIN 1. CATHODE	PIN 1. DRAIN	PIN 1. SOURCE	1			1	
5. ANDDE 5. DRAIN 5. GATE 2 6. CATHEDDE 6. DRAIN 6. DRAIN 1 XX = Specific Device Code M = Month Code • = Pb-Free Package STYLE 10: STYLE 11: PIN 1. CATHEDDE 1 PIN 1. EMITTER 2 2. N/C 2. BASE 2 3. CATHEDDE 2 3. COLLECTER 1 4. ANEDDE 2 4. EMITTER 1 5. N/C 5. BASE 1 6. ANEDE 1 6. COLLECTER 2 Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.	3. CATHODE	3. GATE	3. DRAIN â			XXM•		
STYLE 10: STYLE 11: PD-Free Package *This information is generic. Please refer to ACTHDDE 1 PIN 1. EMITTER 2 CATHDDE 2 CDLLECTOR 1 PD-Free indicator, "G" or microdot "=", may or may not be present. Some products may N/C SBASE 1 COLLECTOR 2 DOCUMENT NUMBER: 98AON11126D Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.]	
STYLE 10: STYLE 11: - = Pb-Free Package PIN 1. CATHIDE 1 PIN 1. EMITTER 2 *This information is generic. Please refer to 2. N/C 2. BASE 2 device data sheet for actual part marking. 3. CATHIDE 2 3. COLLECTOR 1 Pb-Free indicator, "G" or microdot "=", may 4. ANDDE 2 4. EMITTER 1 or may not be present. Some products may 5. N/C 5. BASE 1 ort follow the Generic Marking. 6. ANDDE 1 6. COLLECTOR 2 Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.	6. CATHODE	6. DRAIN	6. DRAIN 1	L		•		
PIN 1. CATHIDE 1 PIN 1. EMITTER 2 *This information is generic. Please refer to device data sheet for actual part marking. 2. N/C 2. BASE 2 device data sheet for actual part marking. 3. CATHIDE 2 3. CDLLECTOR 1 Pb-Free indicator, "G" or microdot "•", may 4. ANDDE 2 4. EMITTER 1 or may not be present. Some products may 5. N/C 5. BASE 1 not follow the Generic Marking. 6. ANDDE 1 6. CDLLECTOR 2 Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red. Image: Control of the co								
3. CATHEDE 2 3. CELLECTER 1 Pb-Free indicator, "G" or microdot "•", may 4. ANDDE 2 4. EMITTER 1 or may not be present. Some products may 5. N/C 5. BASE 1 not follow the Generic Marking. 6. ANDDE 1 6. CELLECTER 2 not follow the Generic Marking. DOCUMENT NUMBER: 98AON11126D Electronic versions are uncontrolled except when accessed directly from the Document Repository.	PIN 1. CATHODE 1	PIN 1. EMITTER 2				, e		
4. ANDDE 2 4. EMITTER 1 or may not be present. Some products may not follow the Generic Marking. 5. N/C 5. BASE 1 not follow the Generic Marking. 6. ANDDE 1 6. CDLLECTOR 2 Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.	3. CATHODE 2	3. COLLECTOR 1						
6. ANDDE 1 6. CDLLECTOR 2 not follow the Generic Marking. DOCUMENT NUMBER: 98AON11126D Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.					or may not be p	resent. So	me product	
Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.	6. ANDDE 1	6. COLLECTOR 2						he Document Repository.
DESCRIPTION: SOT-563-6 1.60x1.20x0.55, 0.50P PAGE 1 OF 1				Printed versions are un				COPY" in red.
	DESCRIPTI	ON: SOT-563-6 1	.60x1.20x0.55	, 0.50P				PAGE 1 OF 1

SOT-563-6 1.60x1.20x0.55, 0.50P CASE 463A

onsemi and ONSEMI: are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.

MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS



SOT-963 1.00x1.00x0.37, CASE 527AD	0.35P				
ISSUE F			DATE	20 FEB 2024	
NDTES:		м	LLIMETE	RS	
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2. CONTROLLING DIMENSION: MILLIMETERS.	2018. DIM	MIN.	NDM.	MAX.	
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIM		0,34	0.37	0,40	
THICKNESS OF BASE MATERIAL.	h	0.10	0.15	0.20	
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH. PROTRUSIONS, OR GATE BURRS.	с	0.07	0.12	0.17	
	D	0.95	1.00	1.05	
	E	0.75	0.80	0.85	
	e		0.35 BSC	2	
+-+-+ Ė ⊢ Ĥ	Н	0.95	1.00	1.05	
	L		0.19 REF	-	
T =	L2	0.05	0.10	0.15	
	6X 0.20-	┥ 	<u>–6</u>)	K 0.35	
			 ′		
	,	ı⊟ ∰ Ŀ	⇒	•	
		_ + −	_+ ↑	1.20	
		ффF	Ч		
	INE		0.25		
	_		0.35 PITCH		
L2→ → ← 6X b (\$\$\0,08 A B]	RECOMME	INDED	MOUNT	ING	
	*For addition Free strateg				
STYLE 1: STYLE 2: STYLE 3: PL	ease download	i the 🛛	I Semicor	nductor	
2. BASE 1 2. EMITTER2 2. CATHODE 1 3. COLLECTOR 2 3. BASE 2 3. ANODE/ANODE 2 4. EMITTER 2 4. COLLECTOR 2 4. CATHODE 2	Soldering and Reference				
4. COLLECTOR 2 4. COLLECTOR 2 4. CATHODE 2 5. BASE 2 5. CATHODE 2 6. COLLECTOR 1 6. ANODE/ANODE 1					
STYLE 4: STYLE 5: STYLE 6:					
PIN 1. COLLECTOR PIN 1. CATHODE PIN 1. CATHODE 2. COLLECTOR 2. CATHODE 2. ANODE 3. BASE 3. ANODE 3. CATHODE	G	ENERIC			
4. EMITTER4. ANODE4. CATHODE5. COLLECTOR5. CATHODE5. CATHODE		NG DIAGF	RAM*		
6. COLLECTOR 6. CATHODE 6. CATHODE]				
STYLE 7: STYLE 8: STYLE 9: PIN 1. CATHODE PIN 1. DRAIN PIN 1. SOURCE 1 2. ANODE 2. DRAIN 2. GATE 1	1	°XXW			
3. CATHODE 3. GATE 3. DRAIN 2 4. CATHODE 4. SOURCE 4. SOURCE 2	ا XX – ۹۳	с с с ecific Devic	- Code		
5. ANODE5. DRAIN5. GATE 26. CATHODE6. DRAIN6. DRAIN 1		nth Code			
STYLE 10: PIN 1. CATHODE 1 2. N/C 3. CATHODE 2 4. ANODE 2 5. N/C 6. ANODE 1	*This information device data she Pb-Free indicate or may not be pr not follow the Ge	et for actua or, "G" or m esent. Som	l part marki crodot "∎", n e products n	ing. nay	
	re uncontrolled except when a				
DESCRIPTION: SOT-963 1.00x1.00x0.37, 0.35P			PA	GE 1 OF 1	
onsemi and QQSCMU are trademarks of Semiconductor Components Industries LLC data onsemi or its subsidiaries in the United States and/or other countries onsemi reserves					

onsemi and ONSEMI: are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.

onsemi, ONSEMI, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "onsemi" or its affiliates and/or subsidiaries in the United States and/or other countries. onsemi owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of onsemi's product/patent coverage may be accessed at <u>www.onsemi.com/site/pdf/Patent_Marking.pdf</u>. onsemi reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and onsemi makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or indental damages. Buyer is responsible for its products and applications using onsemi products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by onsemi. "Typical" parameters which may be provided in onsemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. onsemi does not convey any license under any of its intellectual property rights nor the rights of others. onsemi products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification. Buyer shall indemnify and hold onsemi and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs,

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:

Technical Library: www.onsemi.com/design/resources/technical-documentation onsemi Website: www.onsemi.com

ONLINE SUPPORT: <u>www.onsemi.com/support</u> For additional information, please contact your local Sales Representative at <u>www.onsemi.com/support/sales</u>