

# PNP Silicon Epitaxial Transistor

## KSB834W

### Features

- Complement to KSD880W
- This is a Pb-Free Device

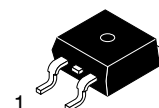
### Applications

- Low Frequency Power Amplifier

### ABSOLUTE MAXIMUM RATINGS ( $T_C = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current	-3	A
$I_B$	Base Current	-0.5	A
$P_C$	Collector Dissipation ( $T_C = 25^\circ\text{C}$ )	30	W
$P_C$	Collector Dissipation ( $T_A = 25^\circ\text{C}$ )	1.5	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

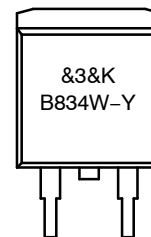
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.



1. Base
2. Collector
3. Emitter

D<sup>2</sup>PAK-3 (TO-263, 3-LEAD)  
CASE 418AJ

### MARKING DIAGRAM



- &3 = Date Code Format
- &K = Lot Run Traceability Code
- B834W-Y = Specific Device Code

### ORDERING INFORMATION

Device	Package	Shipping <sup>†</sup>
KSB834WYTM	D2PAK-3 (Pb-Free)	800 Units / Tape & Reel

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

# KSB834W

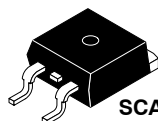
## ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -60\text{ V}, I_E = 0$			-100	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -7\text{ V}, I_C = 0$			-100	$\mu\text{A}$
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{ mA}, I_B = 0$	-60			V
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$ $V_{CE} = -5\text{ V}, I_C = -3\text{ A}$	60 20		200	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{ A}, I_B = -0.3\text{ A}$		-0.5	-1	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$		-0.7	-1	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$		9		MHz
$C_{cb}$	Collector Output Capacitance	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		150		pF
$t_{ON}$	Turn On Time	$V_{CC} = -30\text{ V}, I_C = -1\text{ A}, I_{B1} = -I_{B2} = -0.2\text{ A}, R_L = 30\ \Omega$		0.4		$\mu\text{s}$
$t_{STG}$	Storage Time			1.7		$\mu\text{s}$
$t_F$	Fall Time			0.5		$\mu\text{s}$

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

## $h_{FE}$ CLASSIFICATION

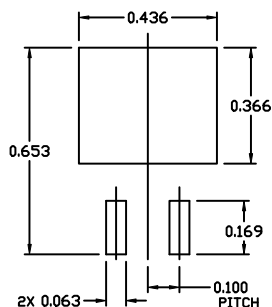
Classification	O	Y
$h_{FE1}$	60 ~ 120	100 ~ 200



SCALE 1:1

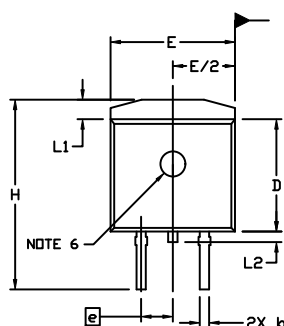
**D<sup>2</sup>PAK-3 (TO-263, 3-LEAD)**  
CASE 418AJ  
ISSUE F

DATE 11 MAR 2021



**RECOMMENDED  
MOUNTING FOOTPRINT**

For additional information on our Pb-free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERM1.

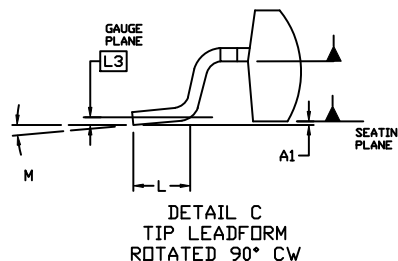
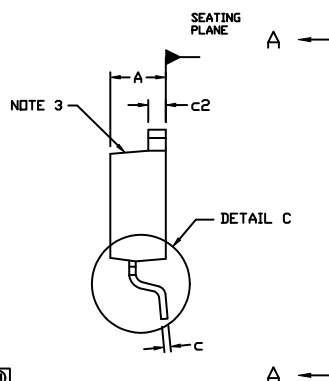


0.100 BSC 0.100 BSC

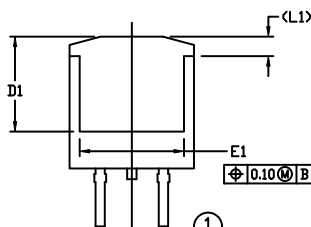
**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.
2. CONTROLLING DIMENSION: INCHES
3. CHAMFER OPTIONAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.005 PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY AT DATUM H.
5. THERMAL PAD CONTOUR IS OPTIONAL WITHIN DIMENSIONS E, L1, D1, AND E1.
6. OPTIONAL MOLD FEATURE.
7. ①, ② ... OPTIONAL CONSTRUCTION FEATURE CALL OUTS.

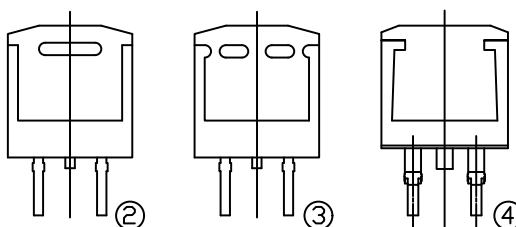
DIM	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A	0.160	0.190	4.06	4.83
A1	0.000	0.010	0.00	0.25
b	0.020	0.039	0.51	0.99
c	0.012	0.029	0.30	0.74
c2	0.045	0.065	1.14	1.65
D	0.330	0.380	8.38	9.65
D1	0.260	---	6.60	---
E	0.380	0.420	9.65	10.67
E1	0.245	---	6.22	---
e	0.100 BSC	---	2.54 BSC	---
H	0.575	0.625	14.60	15.88
L	0.070	0.110	1.78	2.79
L1	---	0.066	---	1.68
L2	---	0.070	---	1.78
L3	0.010 BSC	---	0.25 BSC	---
M	0°	8°	0°	8°



DETAIL C  
TIP LEADFORM  
ROTATED 90° CW

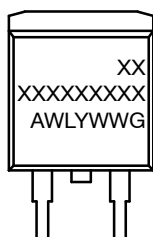


VIEW A-A

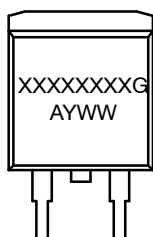


VIEW A-A  
OPTIONAL CONSTRUCTIONS

**GENERIC MARKING DIAGRAMS\***



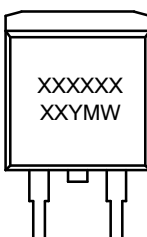
IC



Standard



Rectifier



SSG

XXXXXX = Specific Device Code  
A = Assembly Location  
WL = Wafer Lot  
Y = Year  
WW = Work Week  
W = Week Code (SSG)  
M = Month Code (SSG)  
G = Pb-Free Package  
AKA = Polarity Indicator

\*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.

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<b>DESCRIPTION:</b>	<b>D<sup>2</sup>PAK-3 (TO-263, 3-LEAD)</b>	<b>PAGE 1 OF 1</b>

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