# Si/SiC Hybrid Modules – EliteSiC, Dual Boost, 1200 V, 50 A IGBT + 1200 V, 20 A SiC Diode, Q0 Package

# NXH100B120H3Q0, NXH100B120H3Q0PG-R

The NXH100B120H3Q0 is a power module containing a dual boost stage. The integrated field stop trench IGBTs and SiC Diodes provide lower conduction losses and switching losses, enabling designers to achieve high efficiency and superior reliability.

### Features

- 1200 V Ultra Field Stop IGBTs
- Low Reverse Recovery and Fast Switching SiC Diodes
- 1600 V Bypass and Anti−parallel Diodes
- Low Inductive Layout
- Solderable Pins or Press−Fit Pins
- Thermistor
- Options with Pre−Applied Thermal Interface Material (TIM) and Without Pre−Applied TIM

### Typical Applications

- Solar Inverter
- Uninterruptible Power Supplies
- Energy Storage Systems

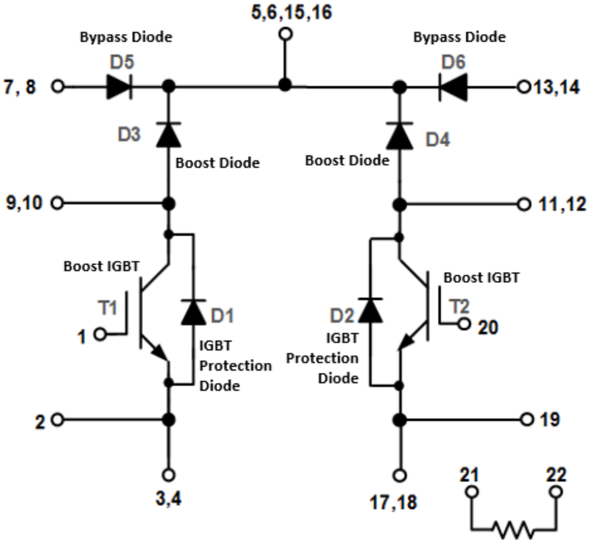
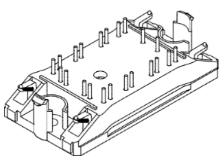
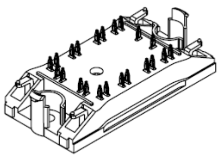


**Figure 1. NXH100B120H3Q0xG/PG−R Schematic Diagram**



QOBOOST
CASE 180AJ
SOLDER PINS

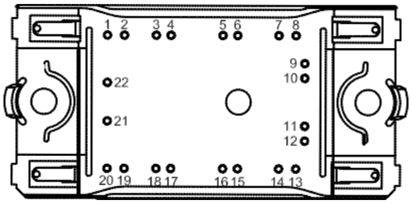


QOBOOST
CASE 180BF
PRESS−FIT PINS

### MARKING DIAGRAM

xx = P, PT, S or ST
YYWW = Year and Work Week Code
A = Assembly Site Code
T = Test Site Code
G = Pb−Free Package

### PIN CONNECTIONS



### ORDERING INFORMATION

See detailed ordering and shipping information on page 4 of this data sheet.

**ABSOLUTE MAXIMUM RATINGS** (Note 1) $T_J$ = 25°C Unless Otherwise Noted

| Rating | Symbol | Value | Unit |
|---|---|---|---|
| **BOOST IGBT** | | | |
| Collector−Emitter Voltage | $V_{CES}$ | 1200 | V |
| Gate−Emitter Voltage | $V_{GE}$ | ±20 | V |
| Continuous Collector Current @ $T_C < 80°C$ ($T_J$ = 175°C) | $I_{C1}$ | 61 | A |
| Continuous Collector Current @ $T_C < 102°C$ ($T_J$ = 175°C) | $I_{C2}$ | 50 | A |
| Pulsed Collector Current ($T_J$ = 175°C) | $I_{Cpulse}$ | 150 | A |
| Maximum Power Dissipation @ $T_C$ = 80°C ($T_J$ = 175°C) | $P_{tot}$ | 186 | W |
| Minimum Operating Junction Temperature | $T_{JMIN}$ | −40 | °C |
| Maximum Operating Junction Temperature | $T_{JMAX}$ | 150 | °C |
| **BOOST DIODE** | | | |
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 1200 | V |
| Continuous Forward Current @ $T_C < 80°C$ ($T_J$ = 175°C) | $I_{F1}$ | 34 | A |
| Continuous Forward Current @ $T_C < 132°C$ ($T_J$ = 175°C) | $I_{F2}$ | 20 | A |
| Maximum Power Dissipation @ $T_C$ = 80°C ($T_J$ = 175°C) | $P_{tot}$ | 114 | W |
| Surge Forward Current (60 Hz single half−sine wave) | $I_{FSM}$ | 185 | A |
| $I^2t$ − value (60 Hz single half−sine wave) | $I^2t$ | 142 | $A^2s$ |
| Minimum Operating Junction Temperature | $T_{JMIN}$ | −40 | °C |
| Maximum Operating Junction Temperature | $T_{JMAX}$ | 150 | °C |
| **BYPASS DIODE / IGBT PROTECTION DIODE** | | | |
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 1600 | V |
| Continuous Forward Current @ $T_C < 80°C$ ($T_J$ = 175°C) | $I_{F1}$ | 58 | A |
| Continuous Forward Current @ $T_C < 141°C$ ($T_J$ = 175°C) | $I_{F2}$ | 25 | A |
| Repetitive Peak Forward Current ($T_J$ = 175°C, $t_p$ limited by $T_{Jmax}$) | $I_{FRM}$ | 75 | A |
| Maximum Power Dissipation @ $T_C$ = 80°C ($T_J$ = 175°C) | $P_{tot}$ | 91 | W |
| Minimum Operating Junction Temperature | $T_{JMIN}$ | −40 | °C |
| Maximum Operating Junction Temperature | $T_{JMAX}$ | 150 | °C |
| **THERMAL PROPERTIES** | | | |
| Storage Temperature range | $T_{stg}$ | −40 to 125 | °C |
| **INSULATION PROPERTIES** | | | |
| Isolation test voltage, t = 1 sec, 60 Hz | $V_{is}$ | 3000 | VRMS |
| Creepage distance | | 12.7 | mm |

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. Refer to ELECTRICAL CHARACTERISTICS, RECOMMENDED OPERATING RANGES and/or APPLICATION INFORMATION for Safe Operating parameters.

**RECOMMENDED OPERATING RANGES**

| Rating | Symbol | Min | Max | Unit |
|---|---|---|---|---|
| Module Operating Junction Temperature | $T_J$ | −40 | 150 | °C |

Functional operation above the stresses listed in the Recommended Operating Ranges is not implied. Extended exposure to stresses beyond the Recommended Operating Ranges limits may affect device reliability.

**ELECTRICAL CHARACTERISTICS** $T_J$ = 25°C Unless Otherwise Noted

| Parameter | Test Conditions | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **BOOST IGBT CHARACTERISTICS** | | | | | | |
| Collector−Emitter Cutoff Current | $V_{GE}$ = 0 V, $V_{CE}$ = 1200 V | $I_{CES}$ | − | − | 200 | μA |
| Collector−Emitter Saturation Voltage | $V_{GE}$ = 15 V, $I_C$ = 50 A, $T_J$ = 25°C | $V_{CE(sat)}$ | − | 1.77 | 2.3 | V |
| | $V_{GE}$ = 15 V, $I_C$ = 50 A, $T_J$ = 150°C | | − | 1.93 | − | |
| Gate−Emitter Threshold Voltage | $V_{GE}$ = $V_{CE}$, $I_C$ = 1 mA | $V_{GE(TH)}$ | 4.6 | 5.27 | 6.5 | V |
| Gate Leakage Current | $V_{GE}$ = 20 V, $V_{CE}$ = 0 V | $I_{GES}$ | − | − | 800 | nA |
| Turn−on Delay Time | $T_J$ = 25°C<br>$V_{CE}$ = 700 V, $I_C$ = 50 A $V_{GE}$ = ±15 V, $R_G$ = 4 Ω | $t_{d(on)}$ | − | 44 | − | ns |
| Rise Time | | $t_r$ | − | 16 | − | |
| Turn−off Delay Time | | $t_{d(off)}$ | − | 203 | − | |
| Fall Time | | $t_f$ | − | 23 | − | |
| Turn−on Switching Loss per Pulse | | $E_{on}$ | − | 700 | − | |
| Turn−off Switching Loss per Pulse | | $E_{off}$ | − | 1500 | − | |
| Turn−on Delay Time | $T_J$ = 125°C<br>$V_{CE}$ = 700 V, $I_C$ = 50 A $V_{GE}$ = ±15 V, $R_G$ = 4 Ω | $t_{d(on)}$ | − | 43 | − | ns |
| Rise Time | | $t_r$ | − | 18 | − | |
| Turn−off Delay Time | | $t_{d(off)}$ | − | 233 | − | |
| Fall Time | | $t_f$ | − | 58 | − | |
| Turn−on Switching Loss per Pulse | | $E_{on}$ | − | 800 | − | |
| Turn−off Switching Loss per Pulse | | $E_{off}$ | − | 2600 | − | |
| Input Capacitance | $V_{CE}$ = 20 V, $V_{GE}$ = 0 V, f = 10 kHz | $C_{ies}$ | − | 9075 | − | pF |
| Output Capacitance | | $C_{oes}$ | − | 173 | − | |
| Reverse Transfer Capacitance | | $C_{res}$ | − | 147 | − | |
| Total Gate Charge | $V_{CE}$ = 600 V, $I_C$ = 40 A, $V_{GE}$ = 15 V | $Q_g$ | − | 409 | − | nC |
| Thermal Resistance − chip−to−case | | $R_{thJC}$ | − | 0.51 | − | °C/W |
| Thermal Resistance − chip−to−heatsink | Thermal grease, Thickness ≈ 100 μm, λ = 2.87 W/mK | $R_{thJH}$ | − | 0.82 | − | °C/W |
| **BOOST DIODE CHARACTERISTICS** | | | | | | |
| Diode Reverse Leakage Current | $V_R$ = 1200 V | $I_R$ | − | − | 300 | μA |
| Diode Forward Voltage | $I_F$ = 20 A, $T_J$ = 25°C | $V_F$ | − | 1.44 | 1.8 | V |
| | $I_F$ = 20 A, $T_J$ = 150°C | | − | 1.93 | − | |
| Reverse Recovery Time | $T_J$ = 25°C<br>$V_{CE}$ = 700 V, $I_C$ = 50 A $V_{GE}$ = ±15 V, $R_G$ = 4 Ω | $t_{rr}$ | − | 15 | − | ns |
| Reverse Recovery Charge | | $Q_{rr}$ | − | 108 | − | nC |
| Peak Reverse Recovery Current | | $I_{RRM}$ | − | 11 | − | A |
| Peak Rate of Fall of Recovery Current | | di/dt | − | 1500 | − | A/μs |
| Reverse Recovery Energy | | $E_{rr}$ | − | 20 | − | μJ |
| Reverse Recovery Time | $T_J$ = 125°C<br>$V_{CE}$ = 700 V, $I_C$ = 50 A $V_{GE}$ = ±15 V, $R_G$ = 4 Ω | $t_{rr}$ | − | 16 | − | ns |
| Reverse Recovery Charge | | $Q_{rr}$ | − | 115 | | nC |
| Peak Reverse Recovery Current | | $I_{RRM}$ | − | 12 | | A |
| Peak Rate of Fall of Recovery Current | | di/dt | − | 1400 | | A/μs |
| Reverse Recovery Energy | | $E_{rr}$ | − | 22 | | μJ |
| Thermal Resistance − chip−to−case | | $R_{thJC}$ | − | 0.83 | | °C/W |
| Thermal Resistance − chip−to−heatsink | Thermal grease, Thickness ≈ 100 μm, λ = 2.87 W/mK | $R_{thJH}$ | − | 1.15 | − | °C/W |

**ELECTRICAL CHARACTERISTICS** $T_J$ = 25°C Unless Otherwise Noted

| Parameter | Test Conditions | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **BYPASS DIODE/IGBT PROTECTION DIODE CHARACTERISTICS** | | | | | | |
| Diode Reverse Leakage Current | $V_R$ = 1600 V, $T_J$ = 25°C | $I_R$ | – | – | 100 | μA |
| Diode Forward Voltage | $I_F$ = 25 A, $T_J$ = 25°C | $V_F$ | – | 1.0 | 1.4 | V |
| | $I_F$ = 25 A, $T_J$ = 150°C | | – | 0.90 | – | |
| Thermal Resistance − chip−to−case | | $R_{thJC}$ | – | 1.04 | – | °C/W |
| Thermal Resistance − chip−to−heatsink | Thermal grease, Thickness ≈ 100 μm, λ = 2.87 W/mK | $R_{thJH}$ | – | 1.41 | – | °C/W |
| **THERMISTOR CHARACTERISTICS** | | | | | | |
| Nominal resistance | | $R_{25}$ | – | 22 | – | kΩ |
| Nominal resistance | T = 100°C | $R_{100}$ | – | 1486 | – | Ω |
| Deviation of R25 | | ΔR/R | −5 | – | 5 | % |
| Power dissipation | | $P_D$ | – | 200 | – | mW |
| Power dissipation constant | | | – | 2 | – | mW/K |
| B−value | B(25/50), tolerance ±3% | | – | 3950 | – | K |
| B−value | B(25/100), tolerance ±3% | | – | 3998 | – | K |

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.

## ORDERING INFORMATION

| Orderable Part Number | Marking | Package | Shipping |
|---|---|---|---|
| NXH100B120H3Q0PG,<br>NXH100B120H3Q0PG−R | NXH100B120H3Q0PG,<br>NXH100B120H3Q0PG−R | Q0BOOST − Case 180BF<br>(Pb−Free and Halide−Free)<br>Press−Fit Pins | 24 Units / Blister Tray |
| NXH100B120H3Q0SG | NXH100B120H3Q0SG | Q0BOOST − Case 180AJ<br>(Pb−Free and Halide−Free)<br>Solder Pins | 24 Units / Blister Tray |
| NXH100B120H3Q0PTG | NXH100B120H3Q0PTG | Q0BOOST − Case 180BF<br>(Pb−Free and Halide−Free)<br>Press−Fit Pins, Thermal Interface Material (TIM) | 24 Units / Blister Tray |
| NXH100B120H3Q0STG | NXH100B120H3Q0STG | Q0BOOST − Case 180AJ<br>(Pb−Free and Halide−Free)<br>Solder Pins, Thermal Interface Material (TIM) | 24 Units / Blister Tray |

## TYPICAL CHARACTERISTICS
## Boost IGBT & IGBT Protection Diode / Bypass Diode

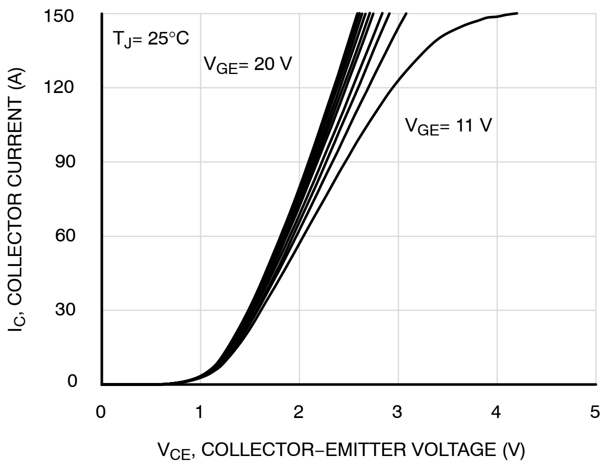


Figure 2. IGBT Typical Output Characteristics

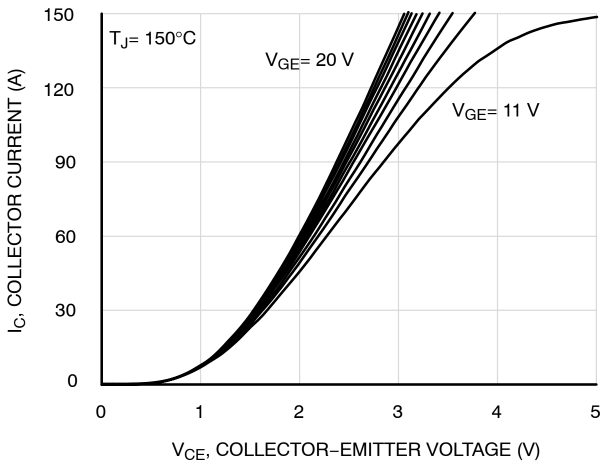


Figure 3. IGBT Typical Output Characteristics

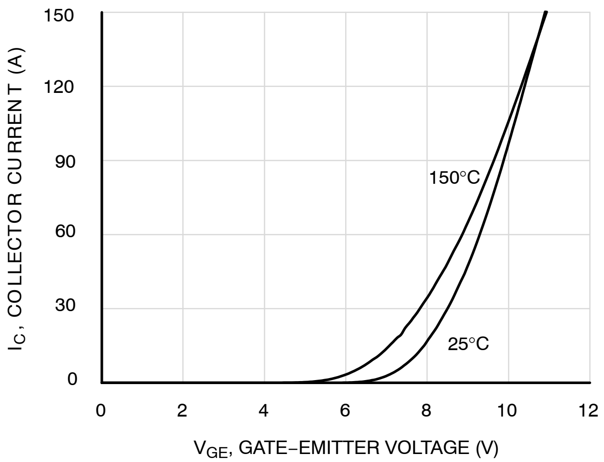


Figure 4. IGBT Typical Transfer Characteristics

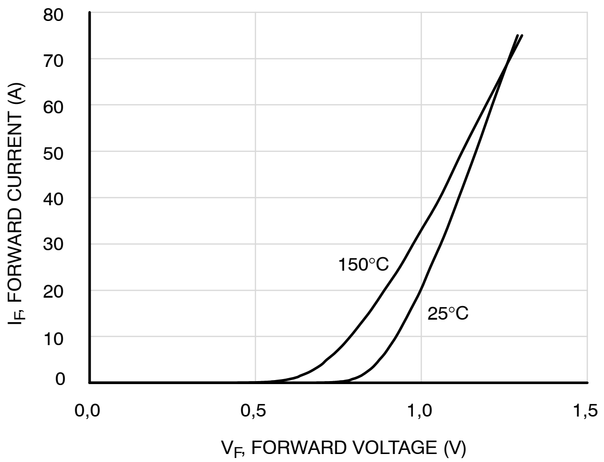


Figure 5. Diode Forward Characteristics

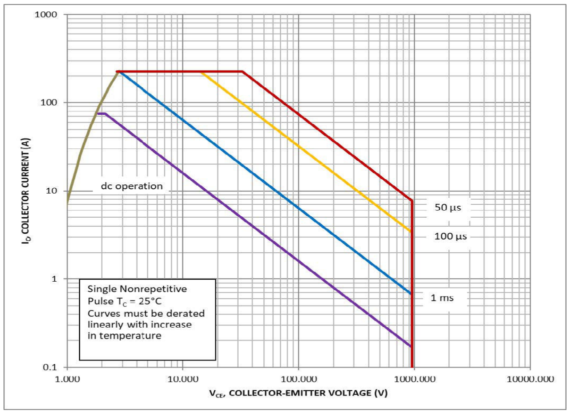


Figure 6. FBSOA

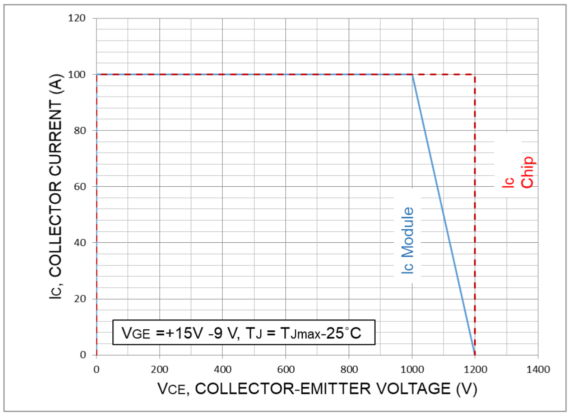


Figure 7. RBSOA

## TYPICAL CHARACTERISTICS
## Boost IGBT & IGBT Protection Diode / Bypass Diode

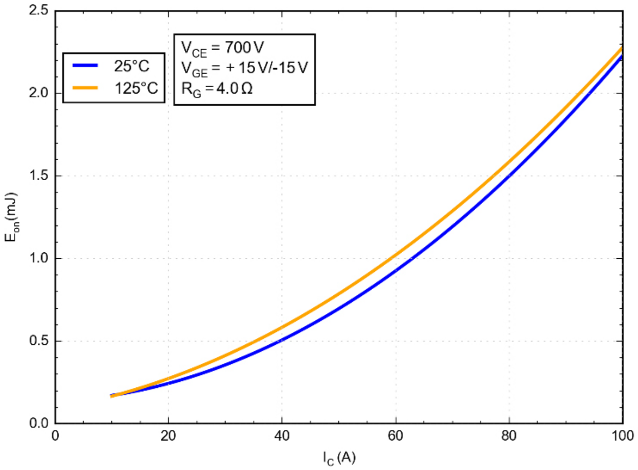


Figure 8. Typical Switching Loss Eon vs. IC

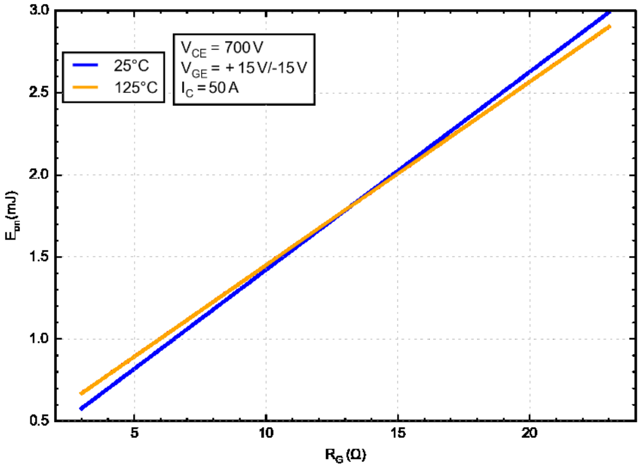


Figure 9. Typical Switching Loss Eon vs. $R_G$

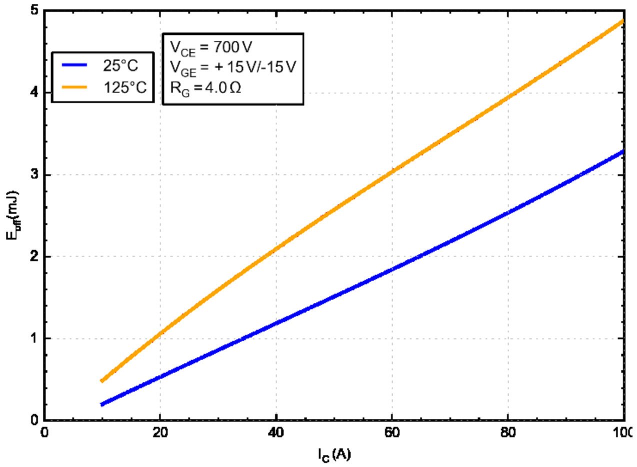


Figure 10. Typical Switching Loss Eoff vs. IC

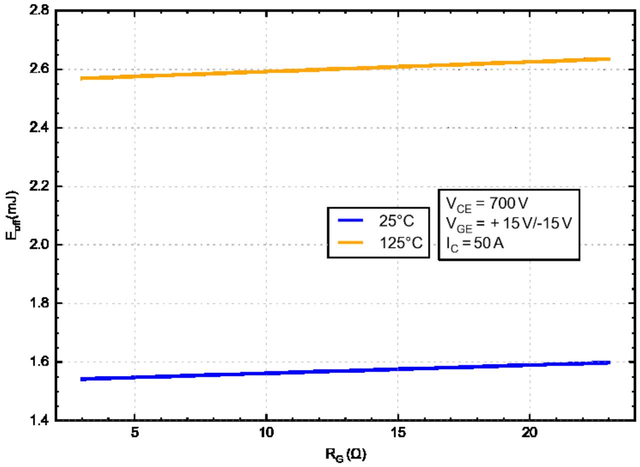


Figure 11. Typical Switching Loss Eoff vs. $R_G$

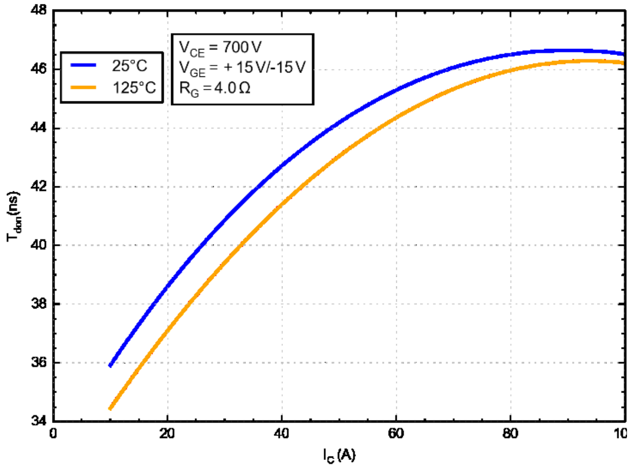


Figure 12. Typical Switching Time Tdon vs. IC

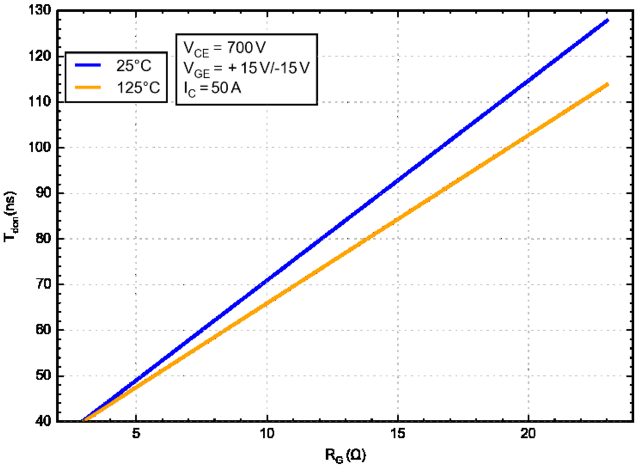


Figure 13. Typical Switching Time Tdon vs. $R_G$

## TYPICAL PERFORMANCE CHARACTERISTICS

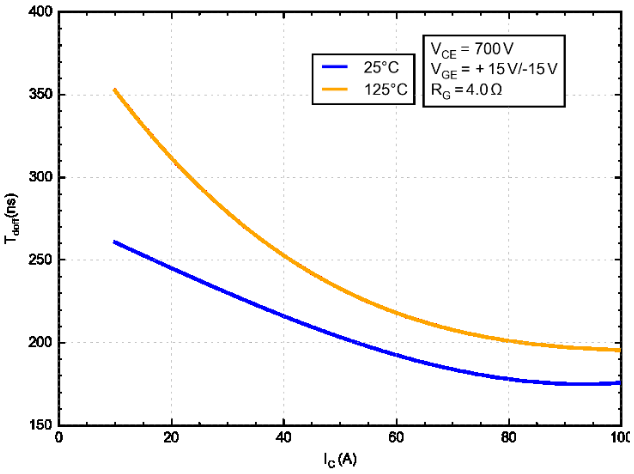


Figure 14. Typical Switching Time Tdoff vs. IC

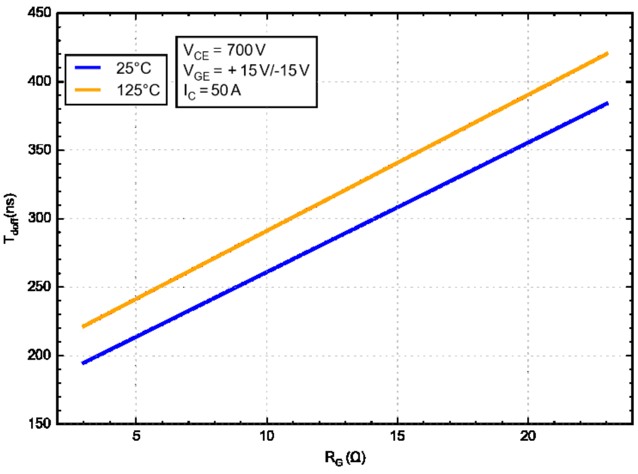


Figure 15. Typical Switching Time Tdoff vs. $R_G$

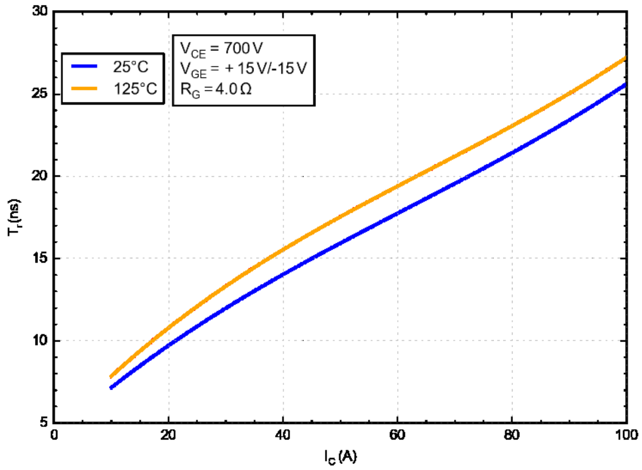


Figure 16. Typical Switching Time Tron vs. IC

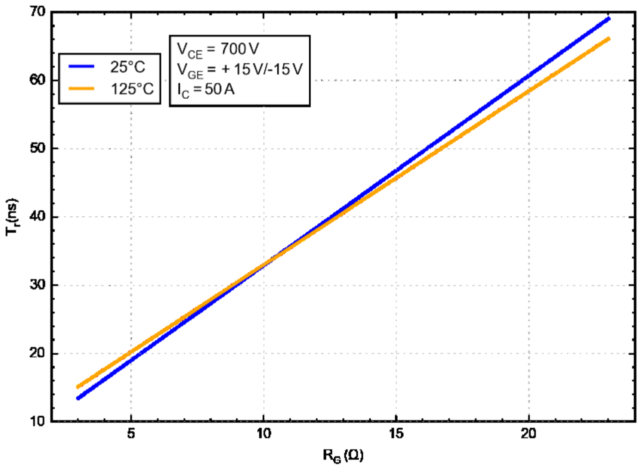


Figure 17. Typical Switching Time Tron vs. $R_G$

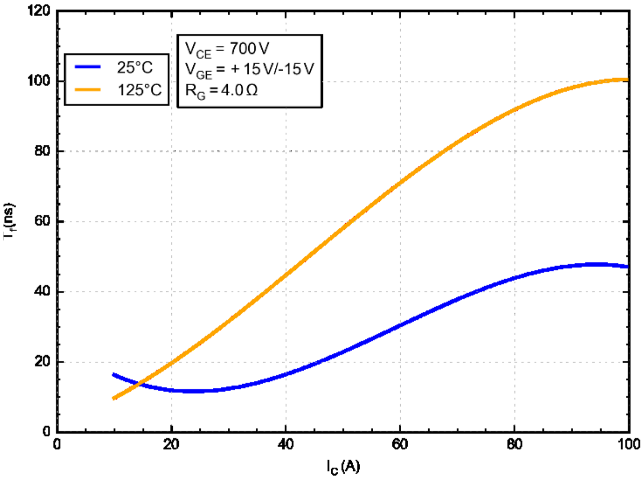


Figure 18. Typical Switching Time Tf vs. IC

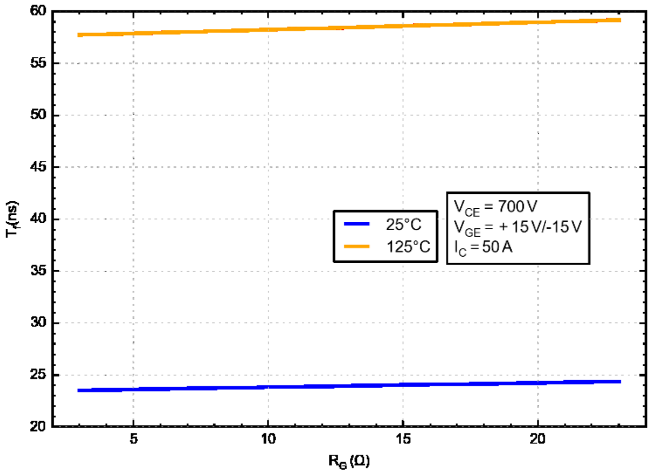


Figure 19. Typical Switching Time Tf vs $R_G$

## TYPICAL PERFORMANCE CHARACTERISTICS

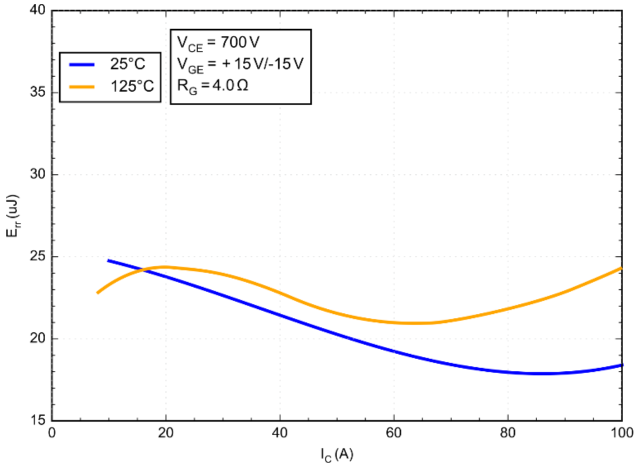


Figure 20. Typical Reverse Recovery Energy vs. IC

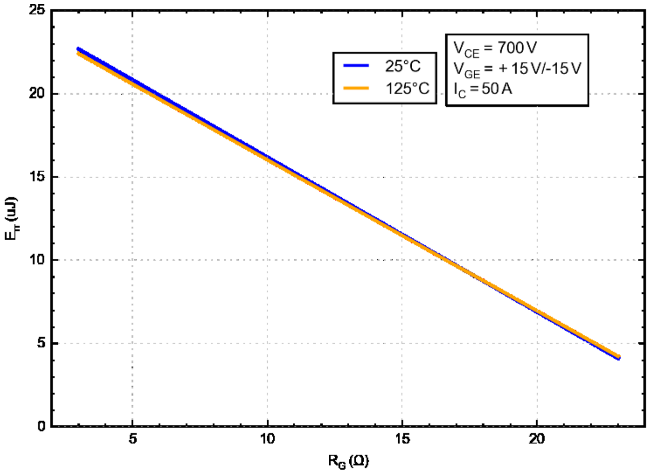


Figure 21. Typical Reverse Recovery Energy vs. RG

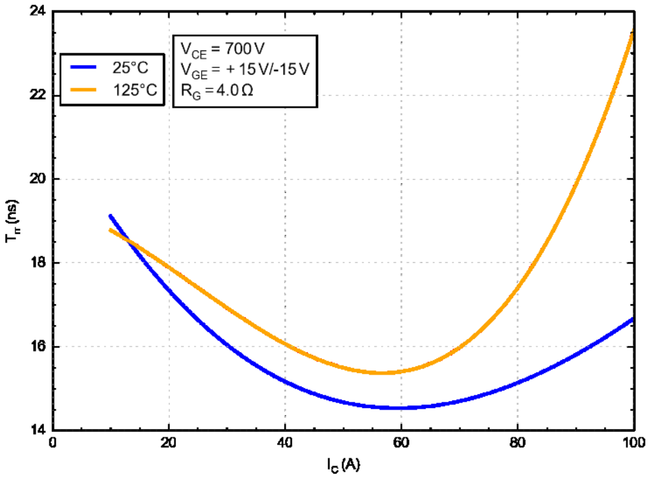


Figure 22. Typical Reverse Recovery Time vs. IC

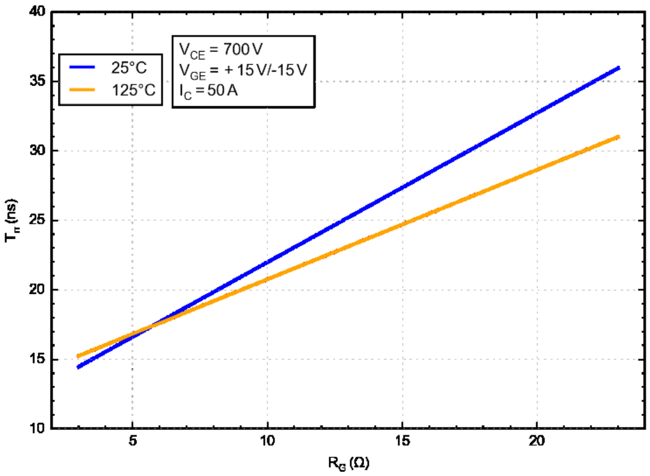


Figure 23. Typical Reverse Recovery Time vs. RG

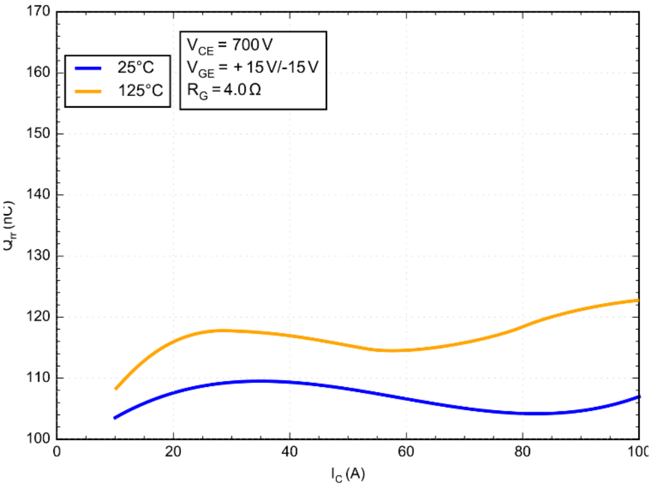


Figure 24. Typical Reverse Recovery Charge vs. IC

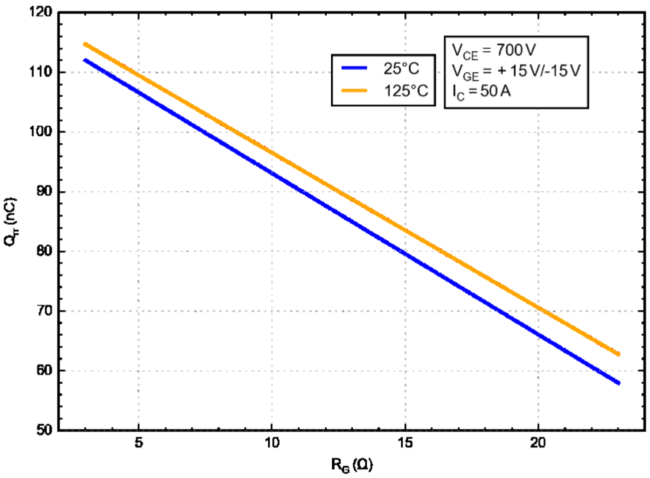


Figure 25. Typical Reverse Recovery Charge vs. RG

## TYPICAL PERFORMANCE CHARACTERISTICS

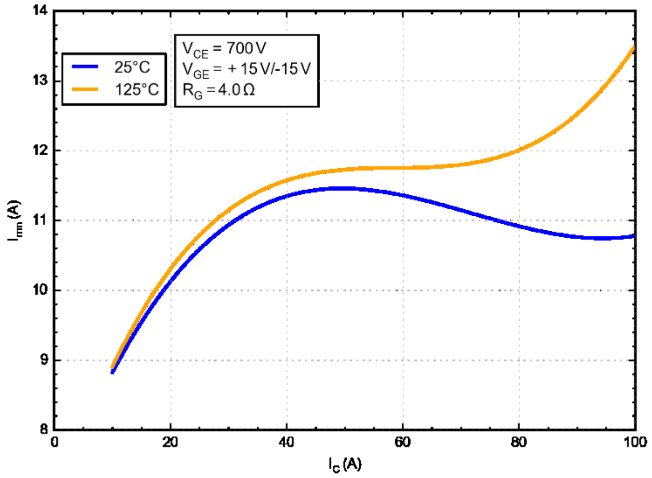


Figure 26. Typical Reverse Recovery Current vs. IC

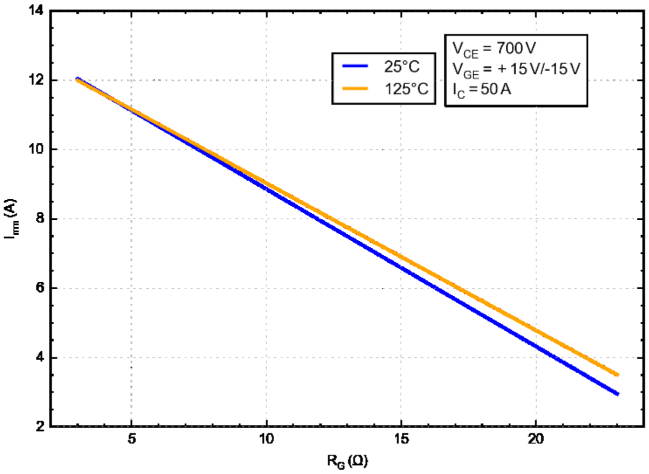


Figure 27. Typical Reverse Recovery Current vs. RG

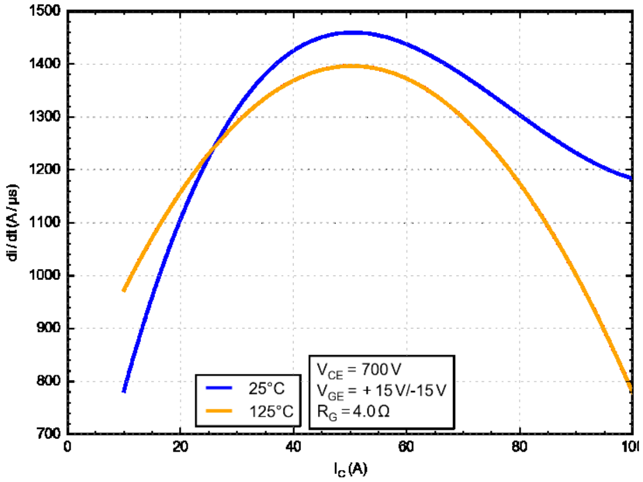


Figure 28. Typical di/dt vs. IC

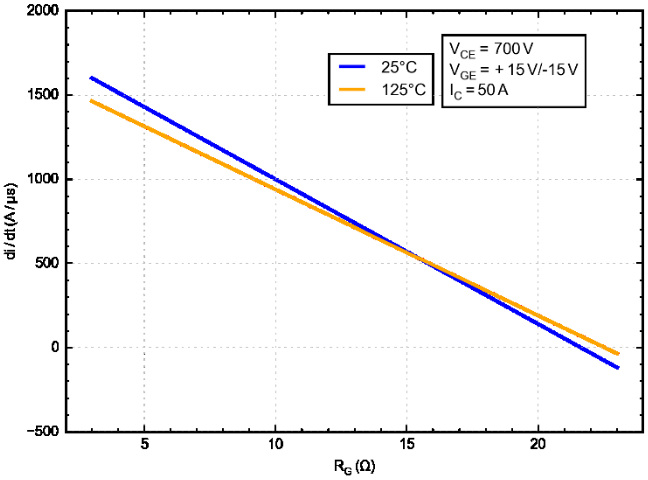


Figure 29. Typical di/dt vs.$R_G$

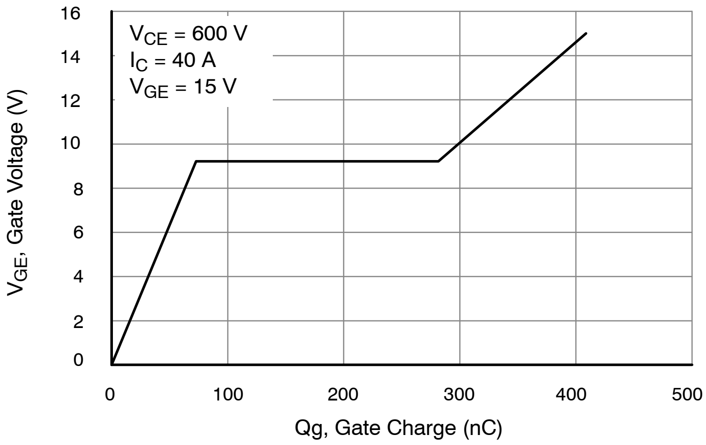


Figure 30. Gate Voltage vs. Gate Charge

## TYPICAL PERFORMANCE CHARACTERISTICS

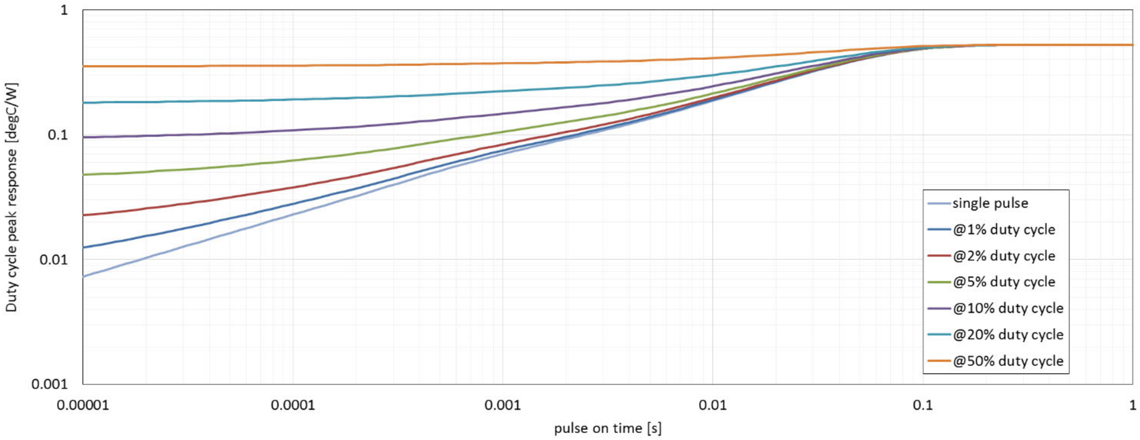


Figure 31. IGBT Junction−to−Case Transient Thermal Impedance

## TYPICAL PERFORMANCE CHARACTERISTICS − Boost Diode

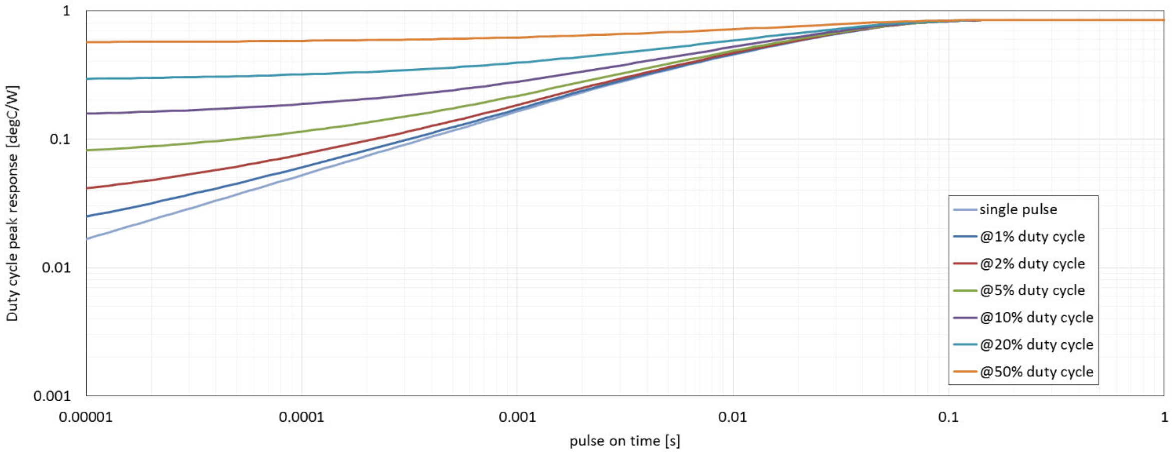


**Figure 32. Diode Junction−to−Case Transient Thermal Impedance**

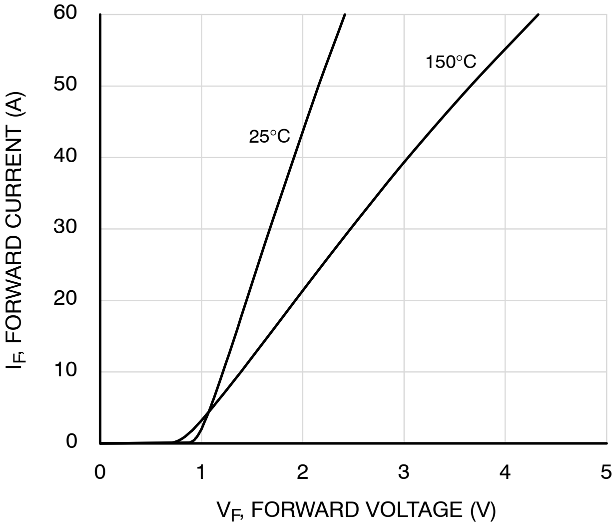


**Figure 33. Diode Forward Characteristic**

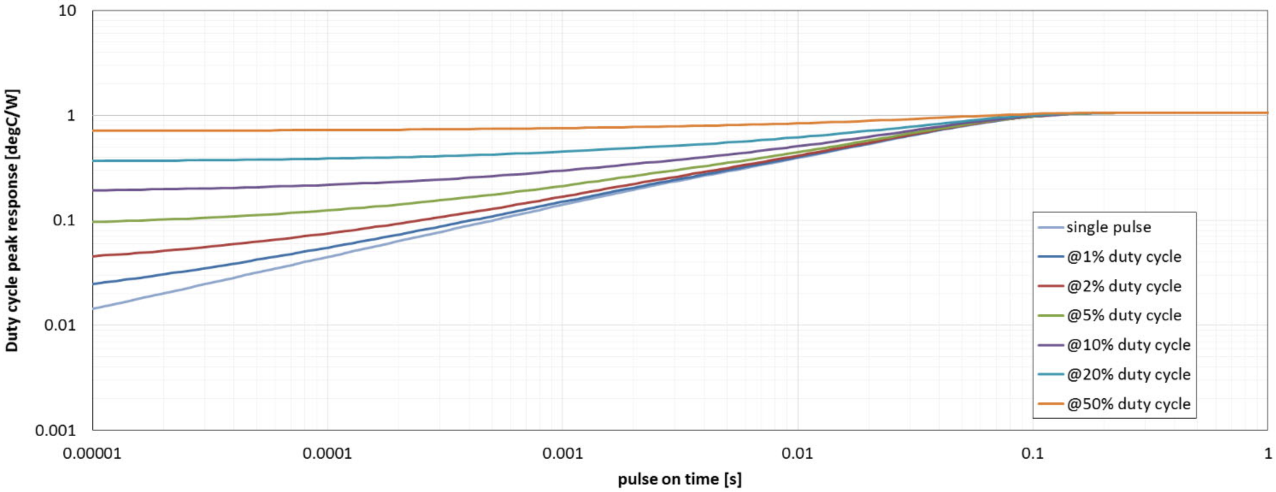
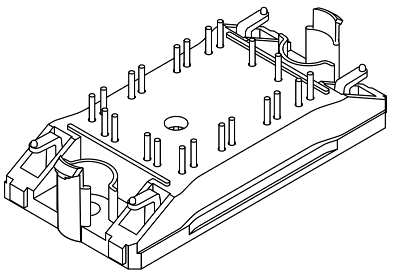


Figure TBD: Transient Thermal Impedance

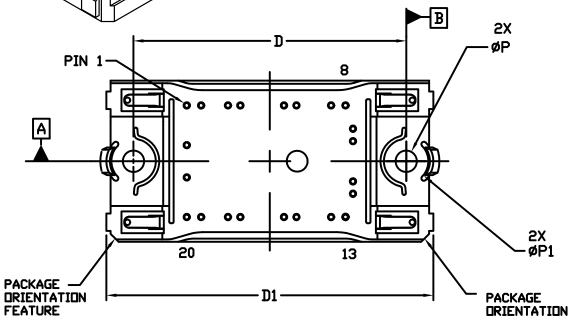
**Figure 34. Diode Junction−to−Case Transient Thermal Impedance**



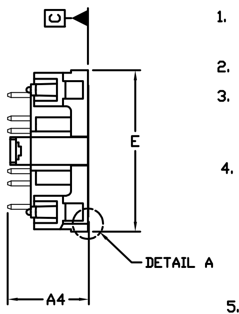
## PIM22, 55x32.5 / Q0BOOST

CASE 180AJ
ISSUE B

DATE 08 NOV 2017



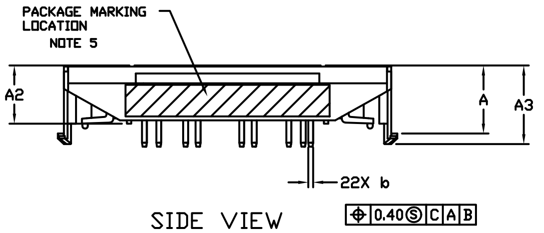
TOP VIEW



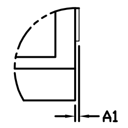
END VIEW

NOTES:

1. DIMENSIONING AND TOLERANCING PER. ASME Y14.5M, 2009.
2. CONTROLLING DIMENSION: MILLIMETERS
3. DIMENSION b APPLIES TO THE PLATED TERMINALS AND IS MEASURED BETWEEN 1.00 AND 3.00 FROM THE TERMINAL TIP.
4. POSITION OF THE CENTER OF THE TERMINALS IS DETERMINED FROM DATUM B THE CENTER OF DIMENSION D, X DIRECTION, AND FROM DATUM A, Y DIRECTION. POSITIONAL TOLERANCE, AS NOTED IN DRAWING, APPLIES TO EACH TERMINAL IN BOTH DIRECTIONS.
5. PACKAGE MARKING IS LOCATED AS SHOWN ON THE SIDE OPPOSITE THE PACKAGE ORIENTATION FEATURES.



SIDE VIEW



DETAIL A

| DIM | MILLIMETERS | |
|---|---|---|
| | MIN. | NOM. |
| A | 13.50 | 13.90 |
| A1 | 0.10 | 0.30 |
| A2 | 11.50 | 11.90 |
| A3 | 15.65 | 16.05 |
| A4 | 16.35 REF | |
| b | 0.95 | 1.05 |
| D | 54.80 | 55.20 |
| D1 | 65.60 | 66.20 |
| E | 32.20 | 32.80 |
| P | 4.20 | 4.40 |
| P1 | 8.90 | 9.10 |

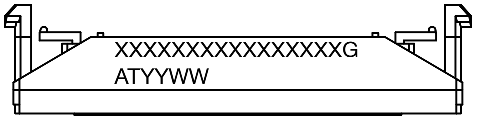
MOUNTING HOLE POSITION

| PIN | HOLE POSITION | | PIN | PIN POSITION | |
|---|---|---|---|---|---|
| | X | Y | | X | Y |
| 1 | −16.75 | −11.25 | 12 | 16.75 | 6.55 |
| 2 | −13.85 | −11.25 | 13 | 15.25 | 11.25 |
| 3 | −8.45 | −11.25 | 14 | 12.35 | 11.25 |
| 4 | −5.95 | −11.25 | 15 | 5.35 | 11.25 |
| 5 | 2.85 | −11.25 | 16 | 2.85 | 11.25 |
| 6 | 5.35 | −11.25 | 17 | −5.95 | 11.25 |
| 7 | 12.35 | −11.25 | 18 | −8.45 | 11.25 |
| 8 | 15.25 | −11.25 | 19 | −13.85 | 11.25 |
| 9 | 16.75 | −6.55 | 20 | −16.75 | 11.25 |
| 10 | 16.75 | −4.05 | 21 | −16.75 | 3.25 |
| 11 | 16.75 | 4.05 | 22 | −16.75 | −3.25 |

NOTE 4

| PIN | PIN POSITION | | PIN | PIN POSITION | |
|---|---|---|---|---|---|
| | X | Y | | X | Y |
| 1 | −16.75 | 11.25 | 12 | 16.75 | −6.55 |
| 2 | −13.85 | 11.25 | 13 | 15.25 | −11.25 |
| 3 | −8.45 | 11.25 | 14 | 12.35 | −11.25 |
| 4 | −5.95 | 11.25 | 15 | 5.35 | −11.25 |
| 5 | 2.85 | 11.25 | 16 | 2.85 | −11.25 |
| 6 | 5.35 | 11.25 | 17 | −5.95 | −11.25 |
| 7 | 12.35 | 11.25 | 18 | −8.45 | −11.25 |
| 8 | 15.25 | 11.25 | 19 | −13.85 | −11.25 |
| 9 | 16.75 | 6.55 | 20 | −16.75 | −11.25 |
| 10 | 16.75 | 4.05 | 21 | −16.75 | −3.25 |
| 11 | 16.75 | −4.05 | 22 | −16.75 | 3.25 |

### GENERIC MARKING DIAGRAM*



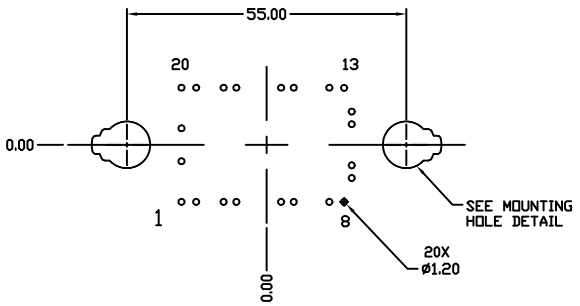
XXXXX = Specific Device Code
G = Pb−Free Package
AT = Assembly & Test Site Code
YYWW = Year and Work Week Code

*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.

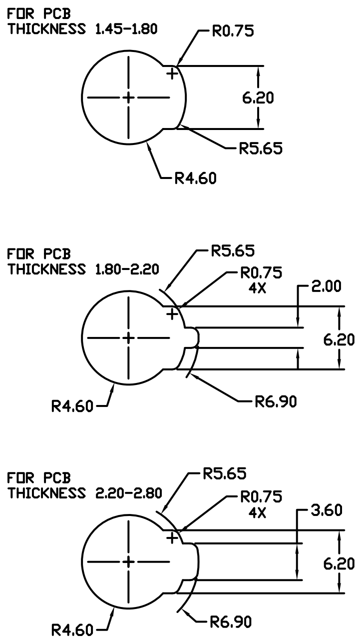
| | | |
|---|---|---|
| **DOCUMENT NUMBER:** | **98AON63481G** | Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped “CONTROLLED COPY” in red. |
| **DESCRIPTION:** | **PIM22 55X32.5 / Q0BOOST (SOLDER PIN)** | **PAGE 1 OF 2** |

**PIM22, 55x32.5 / Q0BOOST**
CASE 180AJ
ISSUE B

DATE 08 NOV 2017



RECOMMENDED
MOUNTING PATTERN



MOUNTING HOLE DETAIL

| | | |
|---|---|---|
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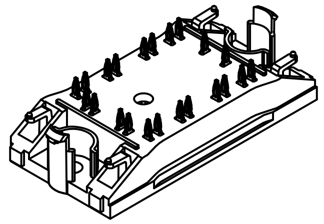
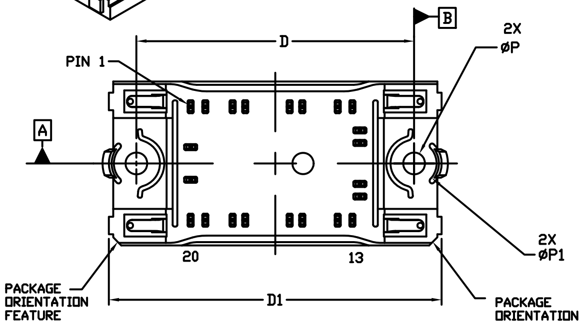
| **DESCRIPTION:** | **PIM22 55X32.5 / Q0BOOST (SOLDER PIN)** | **PAGE 2 OF 2** |

## PIM22 55x32.5 (PRESSFIT PIN)

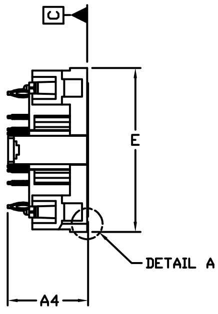
CASE 180BF
ISSUE O

DATE 21 MAY 2019





TOP VIEW

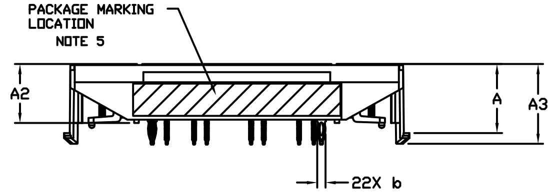


END VIEW

NOTES:

1. DIMENSIONING AND TOLERANCING PER. ASME Y14.5M, 2009.
2. CONTROLLING DIMENSION: MILLIMETERS
3. DIMENSION b APPLIES TO THE PLATED TERMINALS AND IS MEASURED BETWEEN 1.00 AND 3.00 FROM THE TERMINAL TIP.
4. POSITION OF THE CENTER OF THE TERMINALS IS DETERMINED FROM DATUM B THE CENTER OF DIMENSION D, X DIRECTION, AND FROM DATUM A, Y DIRECTION. POSITIONAL TOLERANCE, AS NOTED IN DRAWING, APPLIES TO EACH TERMINAL IN BOTH DIRECTIONS.
5. PACKAGE MARKING IS LOCATED AS SHOWN ON THE SIDE OPPOSITE THE PACKAGE ORIENTATION FEATURES.

| | MILLIMETERS | | |
|---|---|---|---|
| DIM | MIN. | NOM. | MAX. |
| A | 13.50 | 13.70 | 13.90 |
| A1 | 0.10 | 0.20 | 0.30 |
| A2 | 11.50 | 11.70 | 11.90 |
| A3 | 15.65 | 15.85 | 16.05 |
| A4 | 15.95 REF | | |
| b | 1.61 | 1.66 | 1.71 |
| D | 54.80 | 55.00 | 55.20 |
| D1 | 65.60 | 65.90 | 66.20 |
| E | 32.20 | 32.50 | 32.80 |
| P | 4.20 | 4.30 | 4.40 |
| P1 | 8.90 | 9.00 | 9.10 |



SIDE VIEW

⌖ 0.40Ⓢ C A B

NOTE 4

| | PIN POSITION | | | PIN POSITION | |
|---|---|---|---|---|---|
| PIN | X | Y | PIN | X | Y |
| 1 | -16.75 | 11.25 | 12 | 16.75 | -6.55 |
| 2 | -13.85 | 11.25 | 13 | 15.25 | -11.25 |
| 3 | -8.45 | 11.25 | 14 | 12.35 | -11.25 |
| 4 | -5.95 | 11.25 | 15 | 5.35 | -11.25 |
| 5 | 2.85 | 11.25 | 16 | 2.85 | -11.25 |
| 6 | 5.35 | 11.25 | 17 | -5.95 | -11.25 |
| 7 | 12.35 | 11.25 | 18 | -8.45 | -11.25 |
| 8 | 15.25 | 11.25 | 19 | -13.85 | -11.25 |
| 9 | 16.75 | 6.55 | 20 | -16.75 | -11.25 |
| 10 | 16.75 | 4.05 | 21 | -16.75 | -3.25 |
| 11 | 16.75 | -4.05 | 22 | -16.75 | 3.25 |

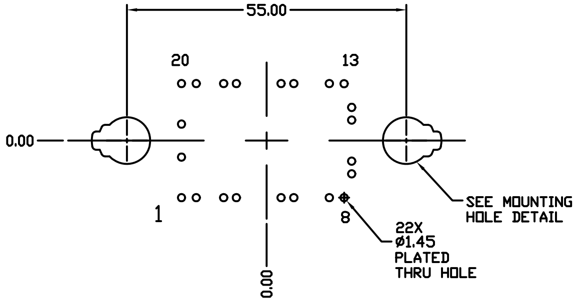
| | | |
|---|---|---|
| **DOCUMENT NUMBER:** | **98AON07824H** | Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red. |
| **DESCRIPTION:** | **PIM22 55x32.5 (PRESSFIT PIN)** | **PAGE 1 OF 2** |

## PIM22 55x32.5 (PRESSFIT PIN)
CASE 180BF
ISSUE O

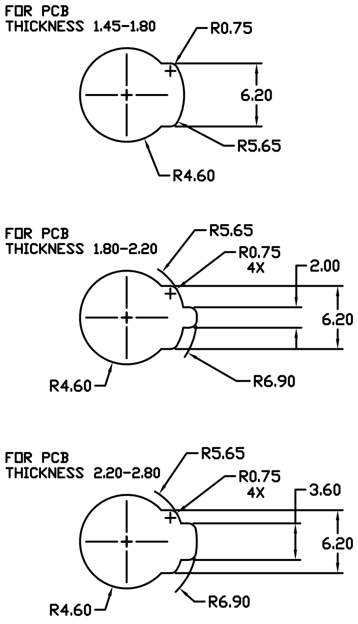
DATE 17 MAY 2019

MOUNTING HOLE POSITION

| PIN | HOLE POSITION |  | PIN | PIN POSITION |  |
|---|---|---|---|---|---|
|  | X | Y |  | X | Y |
| 1 | −16.75 | −11.25 | 12 | 16.75 | 6.55 |
| 2 | −13.85 | −11.25 | 13 | 15.25 | 11.25 |
| 3 | −8.45 | −11.25 | 14 | 12.35 | 11.25 |
| 4 | −5.95 | −11.25 | 15 | 5.35 | 11.25 |
| 5 | 2.85 | −11.25 | 16 | 2.85 | 11.25 |
| 6 | 5.35 | −11.25 | 17 | −5.95 | 11.25 |
| 7 | 12.35 | −11.25 | 18 | −8.45 | 11.25 |
| 8 | 15.25 | −11.25 | 19 | −13.85 | 11.25 |
| 9 | 16.75 | −6.55 | 20 | −16.75 | 11.25 |
| 10 | 16.75 | −4.05 | 21 | −16.75 | 3.25 |
| 11 | 16.75 | 4.05 | 22 | −16.75 | −3.25 |

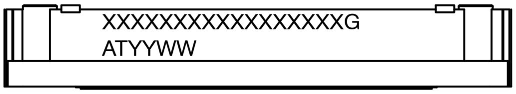


RECOMMENDED MOUNTING PATTERN



MOUNTING HOLE DETAIL

### GENERIC MARKING DIAGRAM*



XXXXX = Specific Device Code
G = Pb−Free Package
AT = Assembly & Test Site Code
YYWW = Year and Work Week Code

*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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