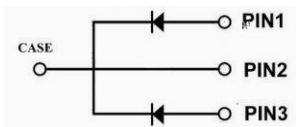


V_{RRM}	1200V
I_F 135°C	20A
Q_C	74nC



- Positive temperature coefficient
- Temperature-independent switching
- Maximum working temperature at 175 °C
- Unipolar devices and zero reverse recovery current
- Zero forward recovery current
- Essentially no switching losses
- Reduction of heat sink requirements
- High-frequency operation
- Reduction of EMI

Typical applications are in power factor correction(PFC), solar inverter, uninterruptible power supply, motor drives, photovoltaic inverter, electric car and charger.

- : TO-247AB
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- : Tin plated leads
- : As marked

■ (T_C=25 Unless otherwise specified)

Device marking code			D112016NCTQG3
Reverse voltage (Repetitive peak) @ T _J =25°C	V_{RRM}	V	1200
Reverse voltage (Surge peak) @ T _J =25°C	V_{RSM}	V	1200
Reverse voltage (DC) @ T _J =25°C	V_{DC}	V	1200
Continuous forward current @ T _C =25°C	I_F	A	22/44
Continuous forward current @ T _C =135°C			10/20
Continuous forward current @ T _C =150°C			8/16
Non-repetitive peak forward surge current @ T _C =25°C, tp=10ms, Half Sine Wave	I_{FSM}	A	95
Power Dissipation@ T _C =25°C	P_{TOT}	W	100/200
Power Dissipation@ T _C =110°C			43/86
i ² t Value@ T _C =25°C ,tp=10ms	$\int i^2 dt$	A ² S	45
Operating junction and Storage temperature range	T _J , T _{stg}	°C	-55 to +175

Per Leg, Per Device

■

Forward voltage drop	V_F	V	$I_F=8A, T_J=25^{\circ}C$	1.46	1.55
			$I_F=8A, T_J=175^{\circ}C$	2.2	-
Reverse leakage current	I_R	μA	$V_R=1200V, T_J=25^{\circ}C$	1	10
			$V_R=1200V, T_J=175^{\circ}C$	5	-
Total capacitive charge	Q_C	nC	$V_R=800V, T_J=25^{\circ}C, Q_C=\int_0^{V_R} C(V)dV$	37	-
Total capacitance	C	pF	$V_R=0V, f=1MHz$	500	-
			$V_R=400V, f=1MHz$	35	-
			$V_R=800V, f=1MHz$	27	-
Capacitance Stored Energy	E_C	μJ	$V_R=800V$	9.5	-

■

($T_a=25$ Unless otherwise specified)

Thermal resistance	$R_{\theta J-C}$	$^{\circ}C/W$	1.49 0.75

Per Leg, Per Device

■

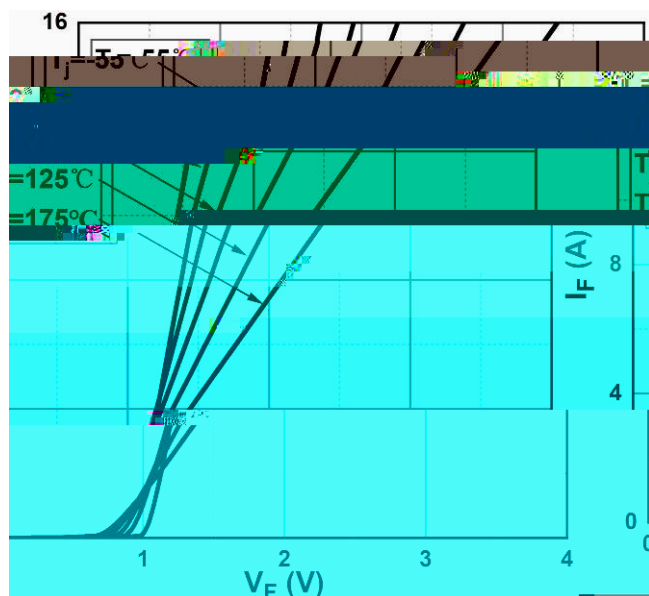


Figure 1. Forward Characteristics

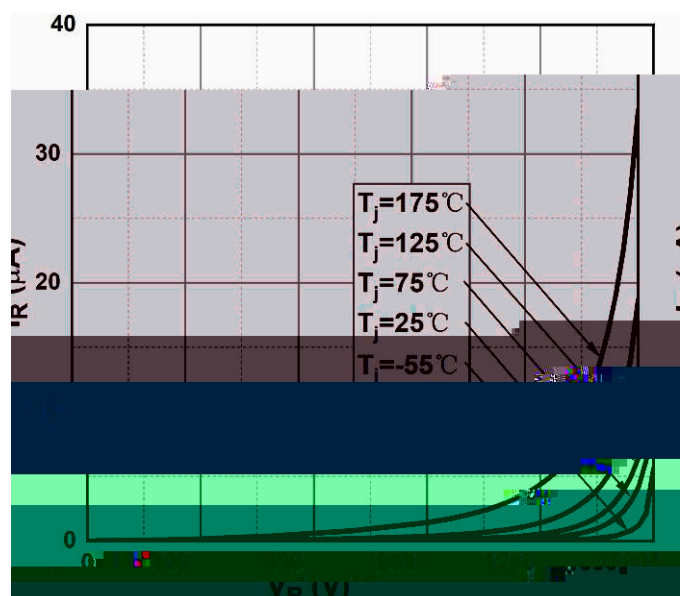


Figure 2. Reverse Characteristics

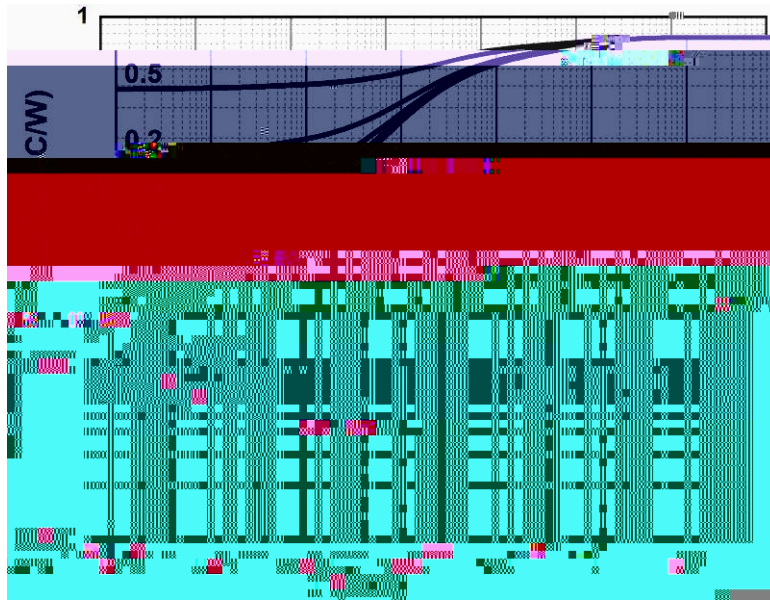


Figure 8. Transient Thermal Impedance



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