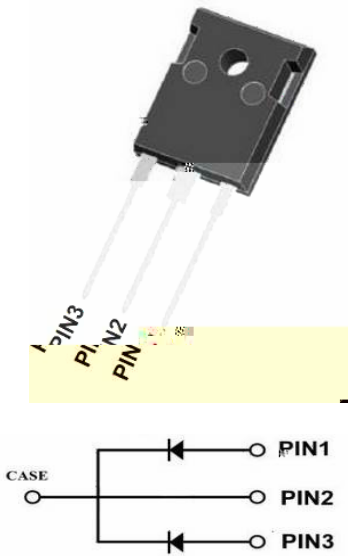


V_{RRM}	1200V
I_F (135°C)	40A
Q_C	182nC



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			D112030NCTQG3
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	43/86
Continuous forward current @ T _C =135°C			20/40

Continuous forward current @ T_C=150°C =110°C 71/141

i ² t Value@ T _C =25°C ,tp=10ms	$\int i^2 dt$	A ² S	128

Operating junc) H

Per Leg, Per Device

■

Forward voltage drop	V_F	V	$I_F=15A, T_J=25^{\circ}C$	1.35	1.55
			$I_F=15A, T_J=175^{\circ}C$	1.85	-
Reverse leakage current	I_R	μA	$V_R=1200V, T_J=25^{\circ}C$	3	20
			$V_R=1200V, T_J=175^{\circ}C$	19	-
Total capacitive charge	Q_C	nC	$V_R=800V, T_J=25^{\circ}C, Q_C=\int_0^{V_R} C(V)dV$	91	-
Total capacitance	C	pF	$V_R=0V, f=1MHz$	1280	-
			$V_R=400V, f=1MHz$	87	-
			$V_R=800V, f=1MHz$	64	-
Capacitance Stored Energy	E_C	μJ	$V_R=800V$	23	-

■

($T_a=25$ Unless otherwise specified)

Thermal resistance	$R_{\theta J-C}$	$^{\circ}C/W$	0.91 0.46

Per Leg, Per Device

■

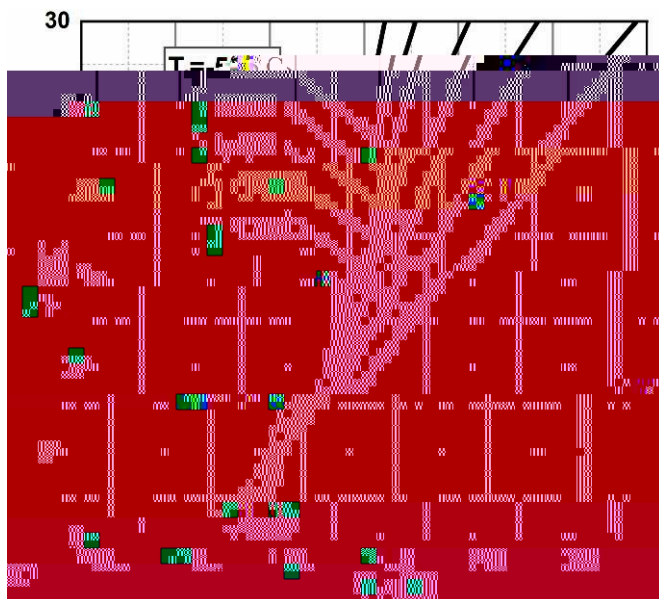


Figure 1. Forward Characteristics

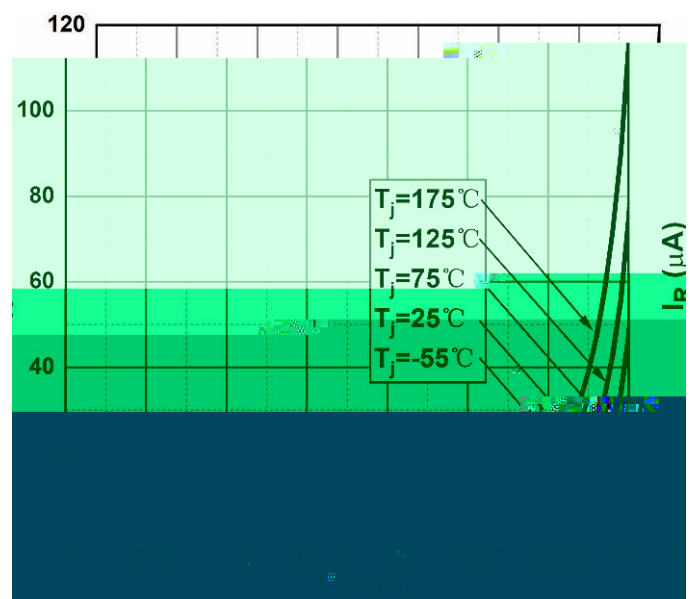


Figure 2. Reverse Characteristics

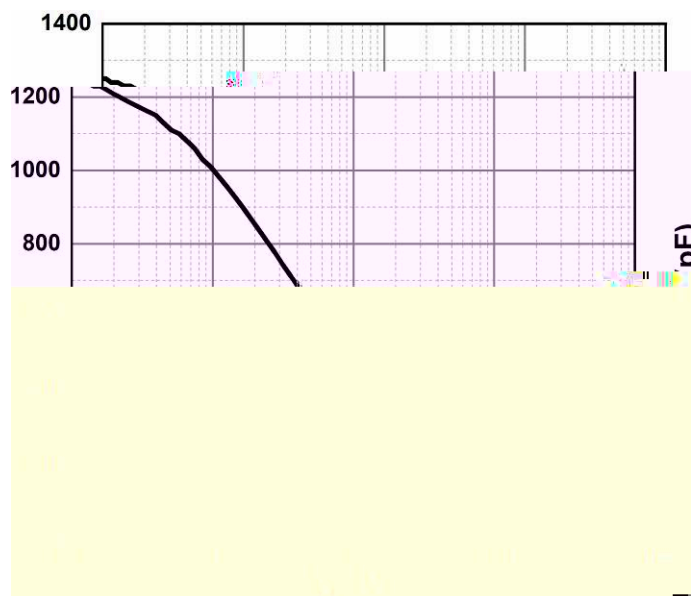


Figure 3. Capacitance vs. Reverse Voltage

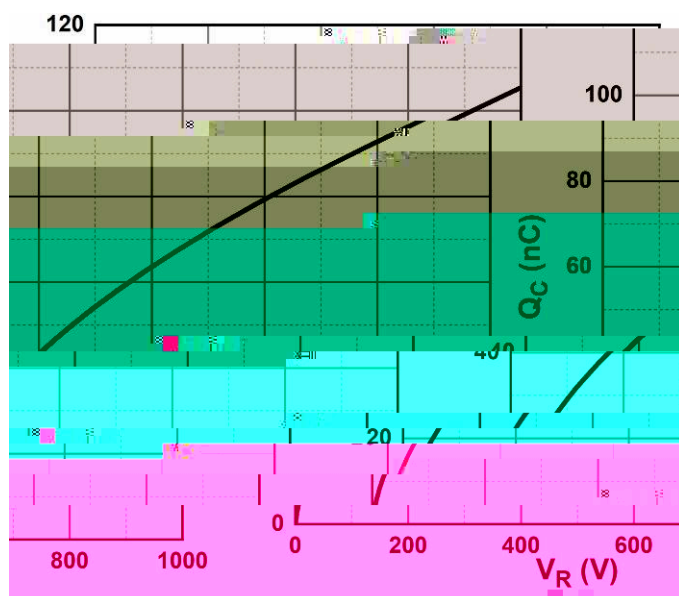


Figure 4. Total Capacitance Charge vs. Reverse Voltage

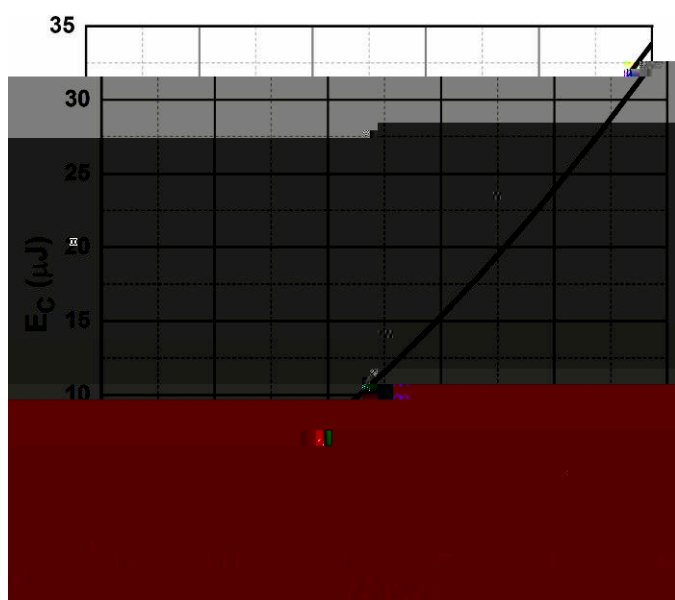


Figure 5. Capacitance Stored Energy

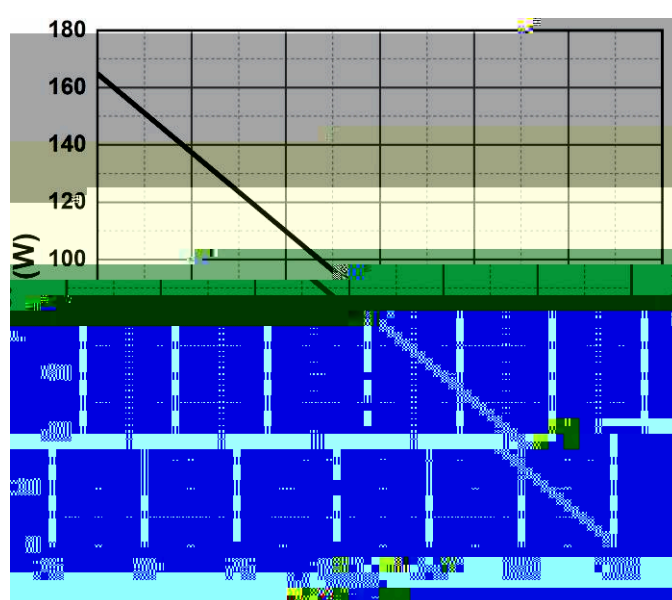


Figure 6. Power Derating

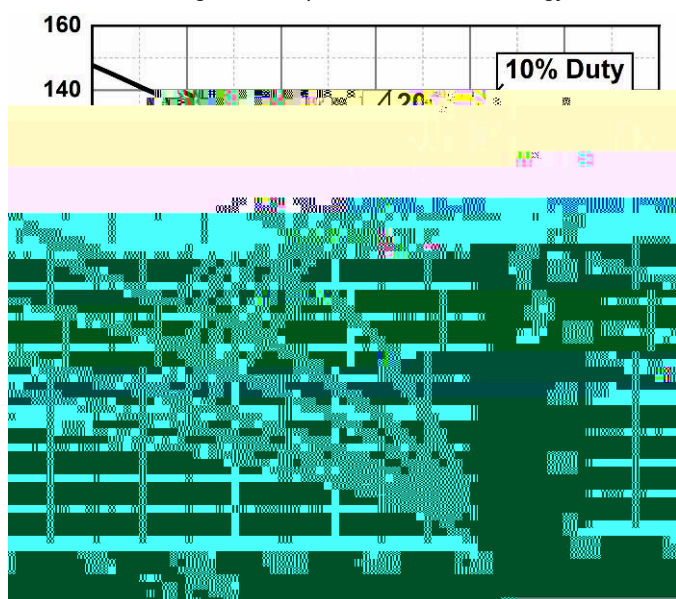


Figure 7. Current Derating

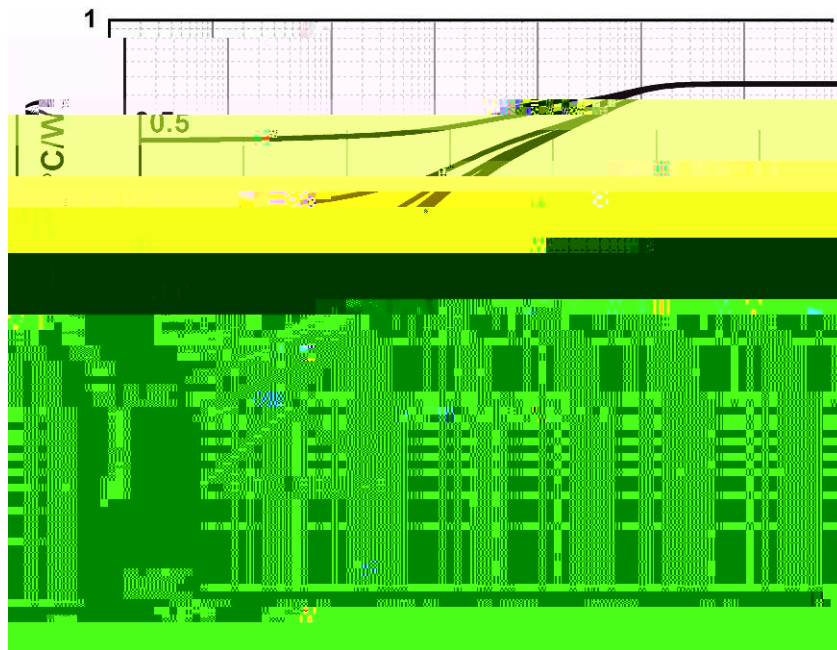


Figure 8. Transient Thermal Impedance
