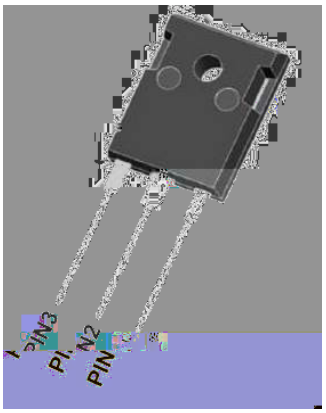
RoHS
COMPLIANT

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

Operating junc) Ţ H

Per Leg, Per Device

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Forward voltage drop	V_F	V	I_F=15A, T_j=25°C	1.35	1.55
			I_F=15A, T_j=175°C	1.85	-
Reverse leakage current	I_R	μA	V_R=1200V, T_j=25°C	3	20
			V_R=1200V, T_j=175°C	19	-
Total capacitive charge	Q_C	nC	V_R=800V, T_j=25°C , $Q_C=\int_0^{VR} C(V)dV$	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	-

■ (Ta=25 Unless otherwise specified)

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

Per Leg, Per Device

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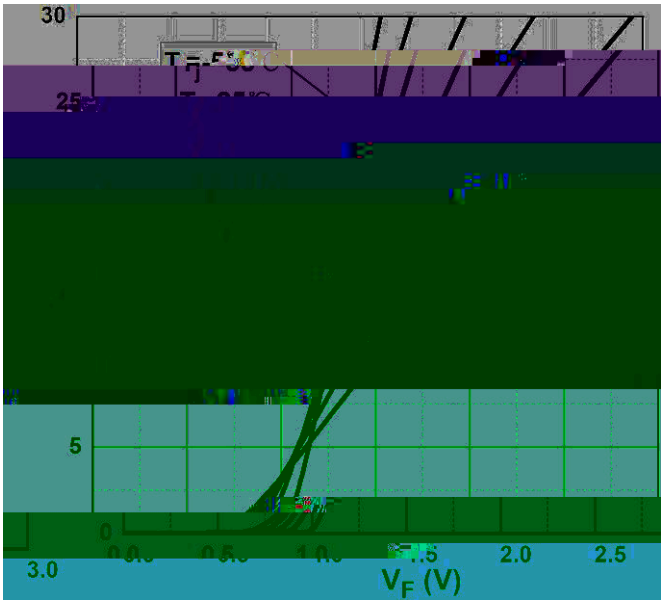

Figure 1. Forward Characteristics

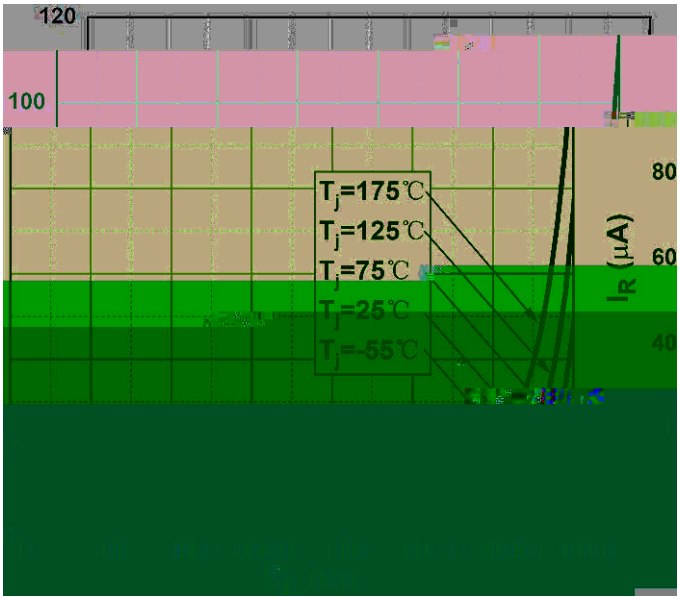

Figure 2. Reverse Characteristics

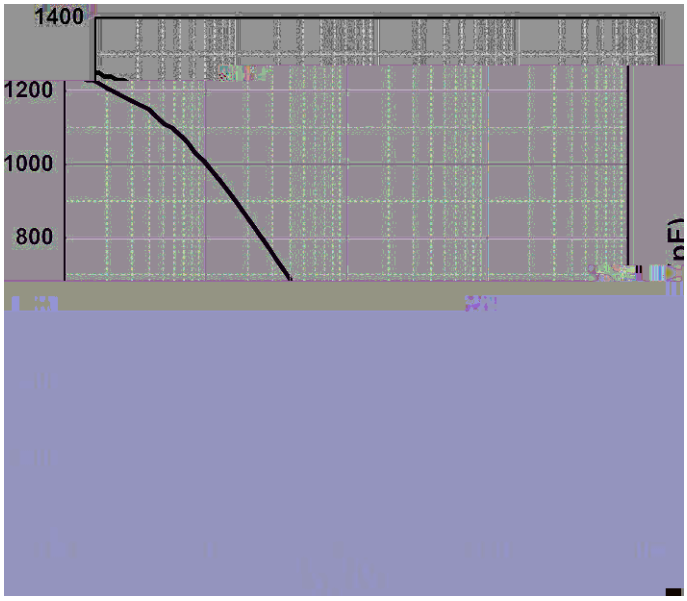

Figure 3. Capacitance vs. Reverse Voltage

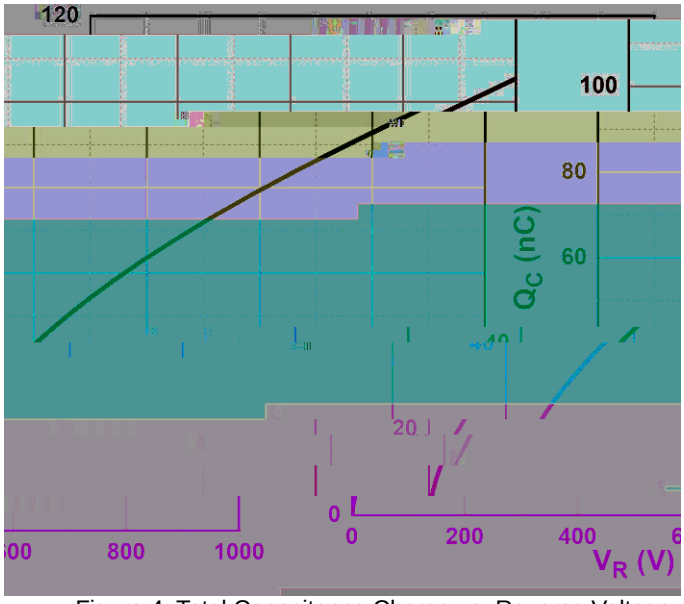

Figure 4. Total Capacitance Charge vs. Reverse Voltage

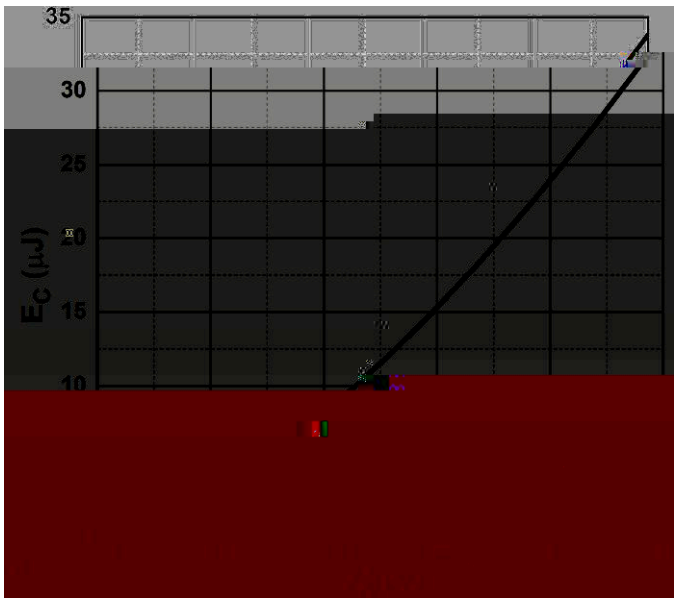

Figure 5. Capacitance Stored Energy

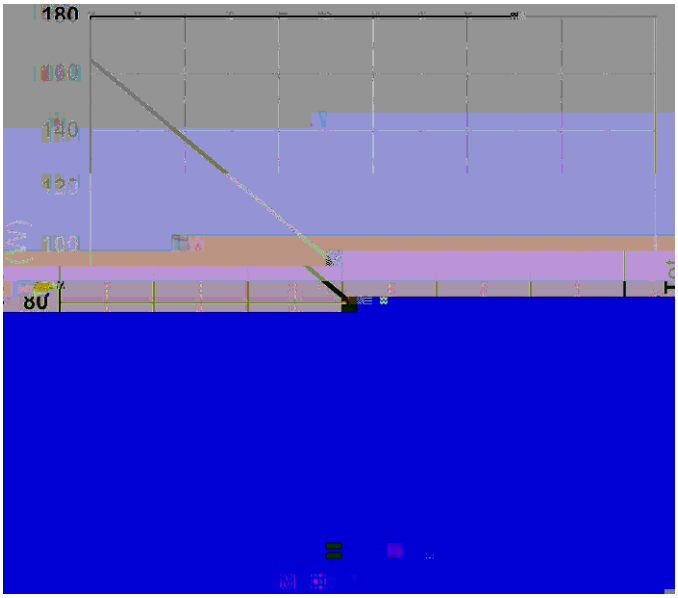

Figure 6. Power Derating

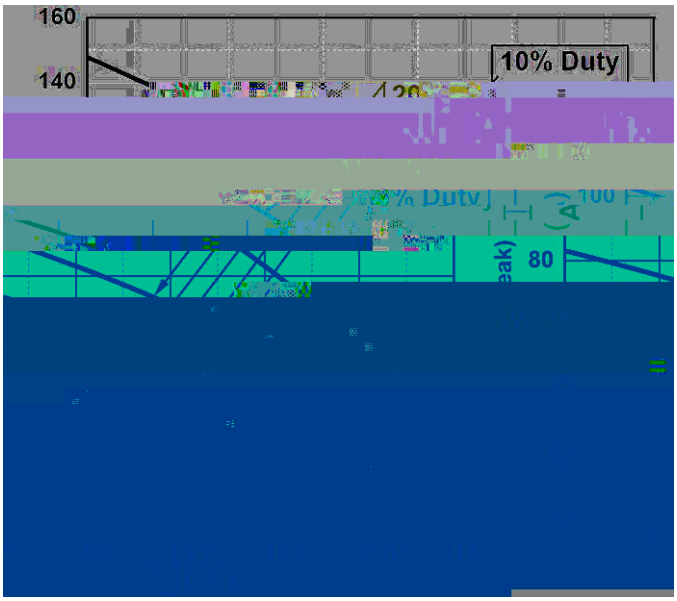

Figure 7. Current Derating

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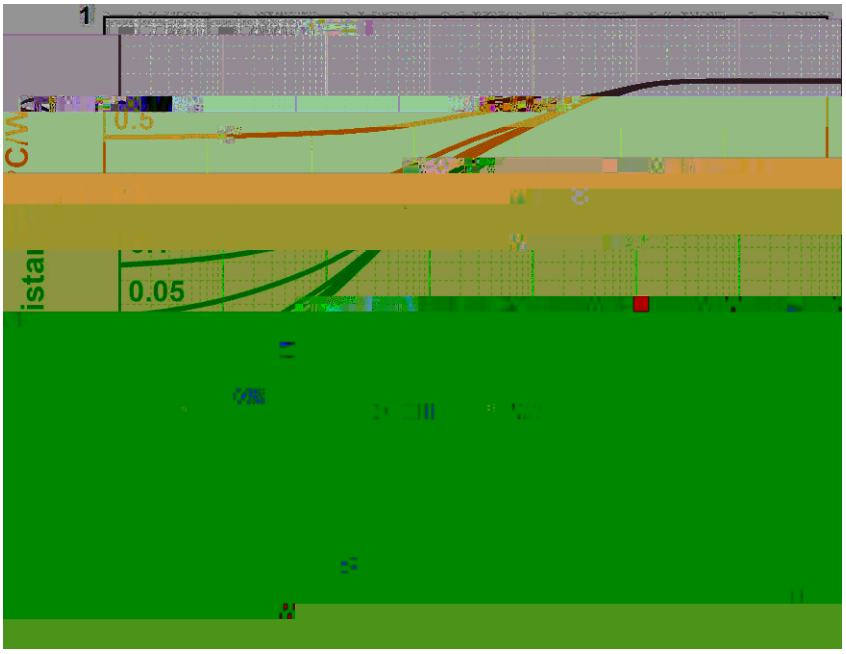

Figure 8. Transient Thermal Impedance