

**Typical Applications**

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

Mechanical Data

Package: TO-220AC

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free

Terminals: Tin plated leads

Polarity: As marked

Maximum Ratings ($T_C=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Device marking code			D112008PQG3
Reverse voltage (Repetitive peak) @ $T_j=25^{\circ}\text{C}$	V_{RRM}	V	1200
Reverse voltage (Surge peak) @ $T_j=25^{\circ}\text{C}$	V_{RSM}	V	1200
Reverse voltage (DC) @ $T_j=25^{\circ}\text{C}$	V_{DC}	V	1200
Continuous forward current @ $T_C=25^{\circ}\text{C}$			22
Continuous forward current @ $T_C=135^{\circ}\text{C}$	I_F	A	10

Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Typ.	Max.
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	$V_R=800V, T_j=25^\circ C, Q_C=\int_0^{V_R} I_C(V)dV$	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	-

Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	VALUE
Thermal resistance	R_{j-c}	$^\circ C/W$	1.57

Typical Characteristics

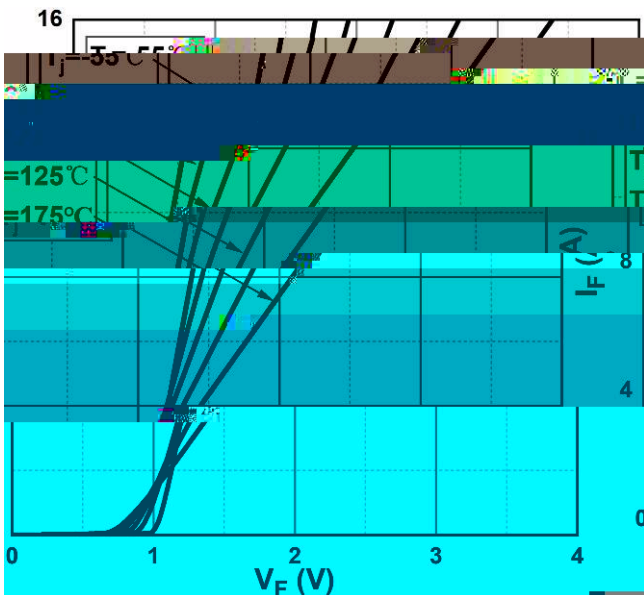


Figure 1. Forward Characteristics

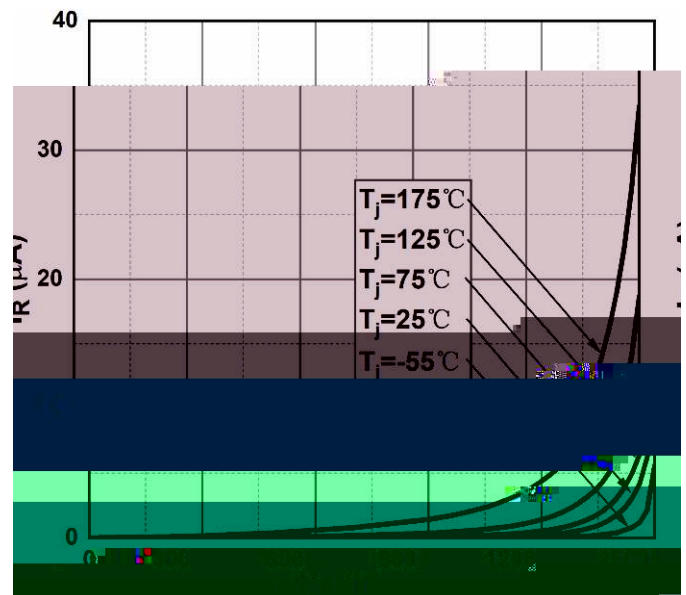


Figure 2. Reverse Characteristics

