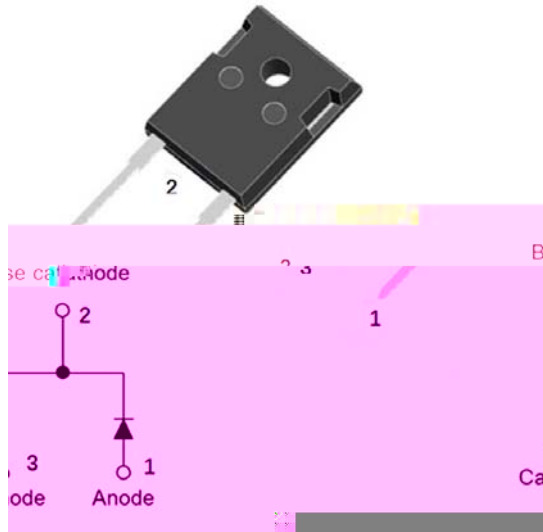


V_{RRM}	650V
I_F 135°C	56A
Q_C	135nC

Positive temperature coefficient
 Temperature-independent switching
 Maximum working temperature at 175 °C
 Unipolar devices and zero reverse recovery current
 Zero forward recovery voltage
 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-247AC

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			D106550NQG3
Reverse voltage (repetitive peak) @ $T_j=25^\circ\text{C}$	V_{RRM}	V	650
Reverse voltage (Surge Peak) @ $T_j=25^\circ\text{C}$	V_{RSM}	V	650
Reverse voltage (DC) @ $T_j=25^\circ\text{C}$	V_{DC}	V	650
Continuous forward current @ $T_c=25^\circ\text{C}$	I_F	A	119
Continuous forward current @ $T_c=135^\circ\text{C}$			56
Continuous forward current @ $T_c=143^\circ\text{C}$			50
Non-repetitive peak forward surge current @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$, Half Sine Wave	I_{FSM}	A	380
Power Dissipation @ $T_c=25^\circ\text{C}$	P_{TOT}	W	454
Power Dissipation @ $T_c=110^\circ\text{C}$			196
i^2t Value @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$	i^2t	A^2S	722
Operating junction and Storage temperature range	T_j, T_{stg}	$^\circ\text{C}$	-55 to +175



(Per Leg)

Forward voltage drop	V_F	V	$I_F=50A, T_J=25^\circ C$	1.45	1.6
			$I_F=50A, T_J=175^\circ C$	1.9	-
Reverse leakage current	I_R	μA	$V_R=650V, T_J=25^\circ C$	3	25
			$V_R=650V, T_J=175^\circ C$	20	-
Total capacitive charge	Q_C	nC	$V_R=400V, T_J=25^\circ C, Q_C = \int_0^{V_R} I_C(V) dV$	135.3	-
Total capacitance	C	pF	$V_R=0V, f=1MHz$	2453	-
			$V_R=200V, f=1MHz$	247	-
			$V_R=400V, f=1MHz$	243	-
Capacitance Stored Energy	E_C	μJ	$V_R=400V$	16.5	-

($T_a=25$ Unless otherwise specified)

Thermal resistance	R_{J-C}	$^\circ C/W$	0.33

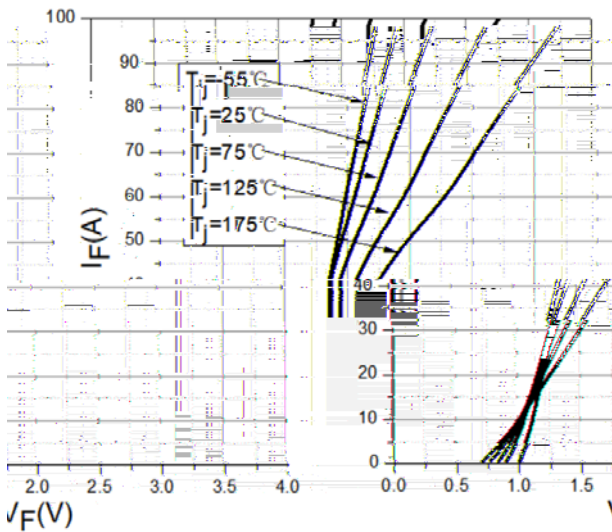


Figure 1. Forward Characteristics

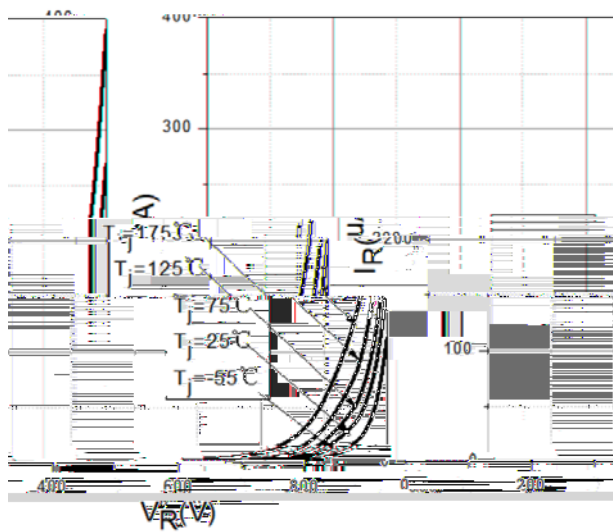
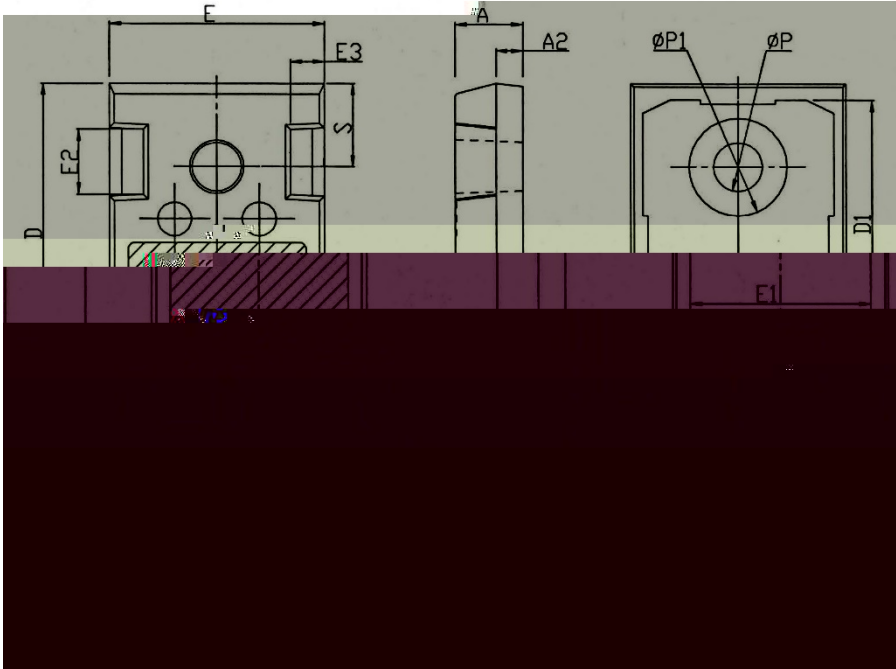


Figure 2. Reverse Characteristic





TO-247AC



Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.11	1.36
b2	1.91	2.21
c	0.51	0.75
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.00	13.60
E2	4.80	5.20
E3	2.30	2.70
e	10.88BSC	
L	19.62	20.22
L1	-	4.30
P	3.40	3.80
P1	-	7.30
S	6.15BSC	



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