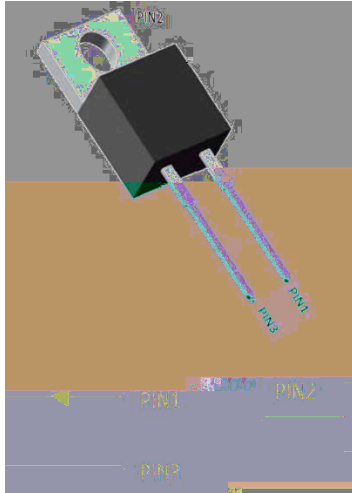


Silicon Carbide Schottky Diode

Q ₅₀	872X
K _{357AE}	508C
S _E	704pE

Features

- Positive temperature coefficient
- Temperature independent switching
- Maximum working temperature at +150°C
- Unipolar devices and reverse recovery current
- Low forward recovery voltage
- Essentially no switching losses
- Reduction of heat sink requirements
- High efficiency operation



Pin 1 Data

Package . TO-220AC

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

Terminals .Tin plated leads

Polarity . As marked

Maximum Ratings $T_c = 25^\circ\text{C}$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	VALUE
Device marking code			D106502PQG3
Reverse voltage (repetitive peak)	V_{RRM}	V	650
Reverse voltage (Surge Peak)	V_{RSM}	V	650
Reverse voltage (DC)	V_{DC}	V	650
Continuous forward current	I_F	A	+0.6
Continuous forward current			3.6
Continuous forward current			2
Non-repetitive peak forward surge current	I_{FSM}	A	20
Power Dissipation	P_{TOT}	K	(5)
Power Dissipation			1 -
Soft Value	$\int i^2 dt$	A ² S	2
Operating Junction and Storage temperature range	T_j, T_{stg}	°C	-55 to +150



YJD106502PQG3

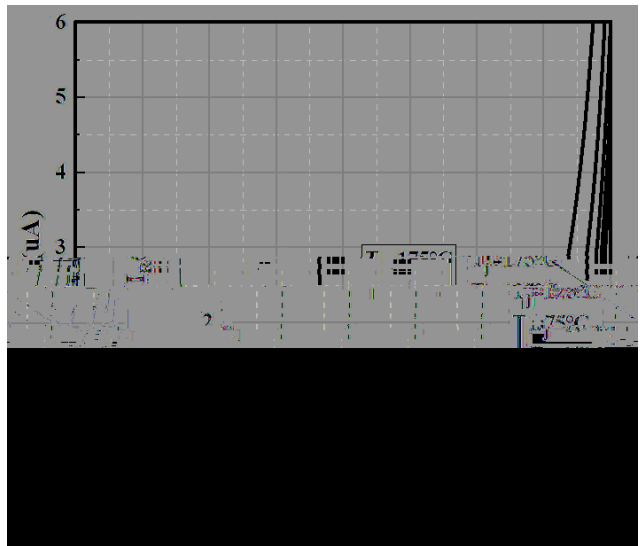
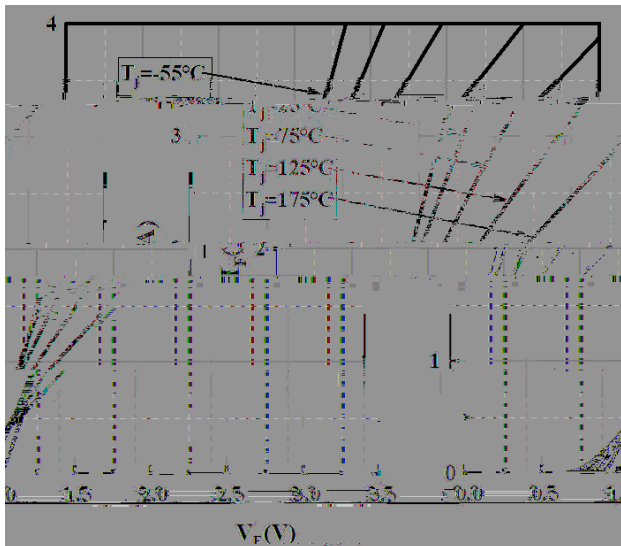
Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Typ.	Max.
Forward voltage drop	V_F	V	$I_F 1.2A \text{ ž. } T_{25} \text{ š C}$	1.5	1.6
			$I_F 1.2A \text{ ž. } T_{1+5} \text{ š C}$	2.2	!
Reverse leakage current	I_R	A	$V_R 1.650V \text{ ž. } T_{25} \text{ š C}$	0.1	10
			$V_R 1.650V \text{ ž. } T_{1+5} \text{ š C}$	1	!
Total capacitance charge	Q_C	nC	$V_R 1.00V \text{ ž. } T_{25} \text{ š C}$ $Q_C 1.0 \mu C \text{ fl V ž. dV}$	5.2	!
Total capacitance	C	pF	$V_R 1.0V \text{ ž. } Z 11M < N$, (!
			$V_R 1.200V \text{ ž. } Z 11M < N$	-.,	!
			$V_R 1.00V \text{ ž. } Z 11M < N$	-.(!
Capacitance Stored Energy	E	J	$V 1.00V$	0.6	!

Thermal Characteristics $T_a 1.25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	Value
Thermal resistance	R_{JIC}	$^{\circ}C / W$	3.33

Typical Characteristics



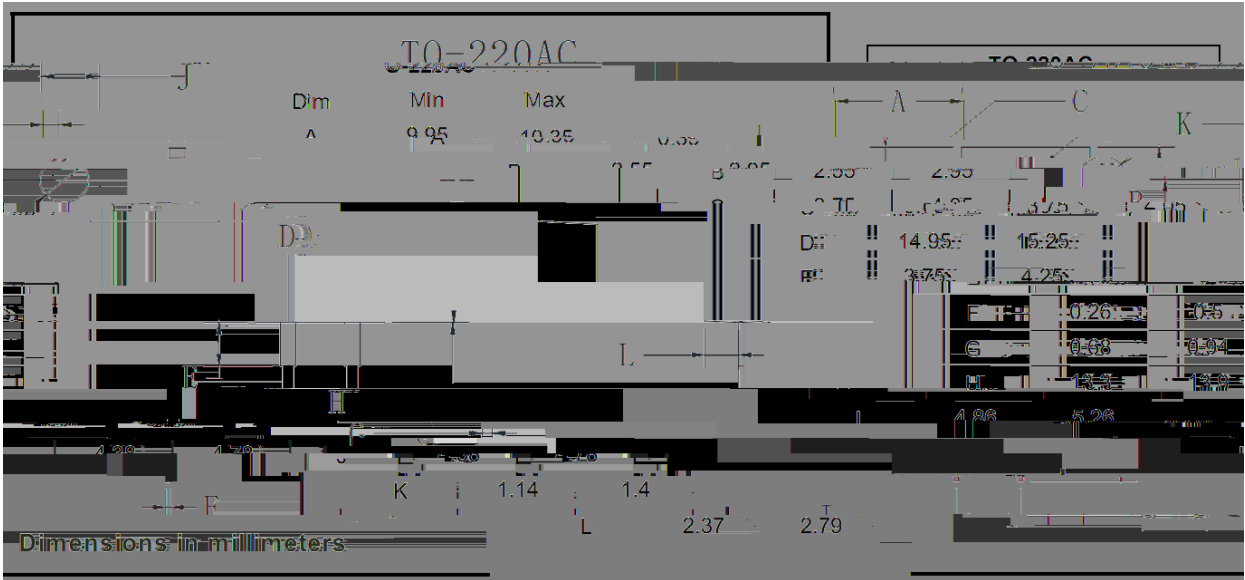
Hkiwtg 30 Hq ty k u f E j u t c e v g t

Hkiwtg 40 T u g E j c t c e v g t k u v k e



YJD106502PQG3

Outline Dimensions



'LVFODLPHU

7KH LQIRUPDQWRIC \$QHWHKLV GRFXPHQW<DQJ]RUR XHIDQJHQZHHF(ROHFOVRUR Q&RF /VHG UHV
ULJKW WR PDNH FKDQJHRU ZW WIK R/XSMIKHRSVLRG IXRF Q' R IGWV SFSDARIGHKUHUCILDEWQGMV L J XQ F
RU RWKHUZZLVH

7KH SURGXFW OLVW HGHSHWIRIEH LW B H VZH WKURIG EQHTXLS PHQW RU GHYLEHWK DQG Q
LEDDmoe€€€€€P=POHV- RU U WR ASHET Hp L EKRX <DQJ]OW OFHQ' Q WPE €VXF K
HTXLSPHQW RU GHYILUFHH KIZKL FORVTHOGRW K H P L D D E I X O L W K L B Q X R I E Q G L D Q J F W U O K X P D Q D O L I H