

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated Chip
- Low VF,Low power loss
- Flexible solution for reliable AC power rectification
- High surge capability
- High temperature soldering guaranteed:260°C/10s at terminals
- Component in accordance to RoHS 2015/863/EU



TO-220AC



MECHANICAL DATA

- Case: JEDEC TO-220AC
- Molding compound meets UL94V-0 flammability rating
- Terminals: Lead solderable per J-STD-002 and JESD22-B102
- Polarity: As marked

TYPICAL APPLICATIONS

- Input Rectification
- Bypass Diode
- Polarity Reverse Protection
- EV / HEV Battery Chargers

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameters	Symbols	Value	Units
Maximum repetitive peak reverse voltage	V_{RRM}	1500	V
Maximum RMS voltage	V_{RMS}	1050	V
Maximum DC blocking voltage	V_{DC}	1500	V
Maximum average forward rectified current(D=0.5 Rectangular wave)	$I_{F(AV)}$	15.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load, (JEDEC method Total device)	I_{FSM}	220	A
Maximum Forward voltage at 15A(Note 1)	V_F	1.15	V
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_J=25^{\circ}C$	I_R	5.0
	$T_J=125^{\circ}C$		100
Typical thermal resistance (Note 2)	$R_{\theta JC}$	0.90	$^{\circ}C/W$
Operating junction temperature range	T_J	- 55 to+150	$^{\circ}C$
Storage temperature range	T_{STG}	- 55 to+150	$^{\circ}C$

Notes: 1.Pulse test: 300 us pulse width,1% duty cycle
2.When mounted on 1" square (650 mm2) PCB of FR-4

RATINGS AND CHARACTERISTICS OF STD15150

FIG.1-FORWARD CURRENT DERATING CURVE

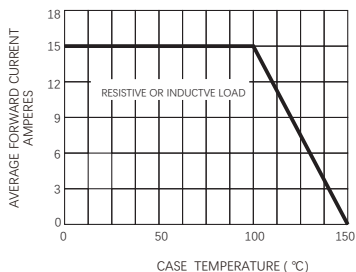


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

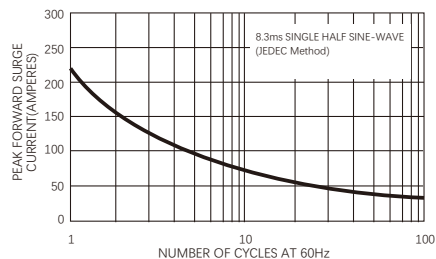


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

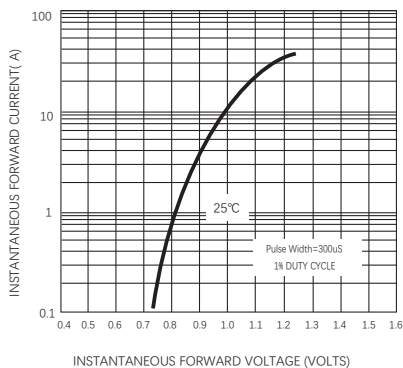
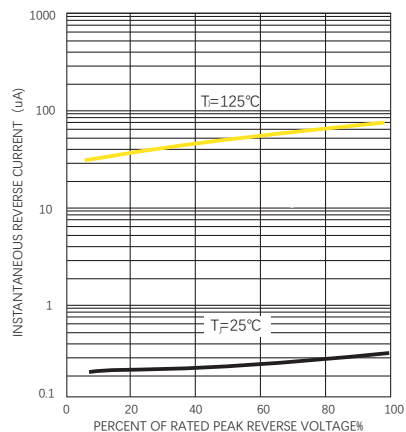
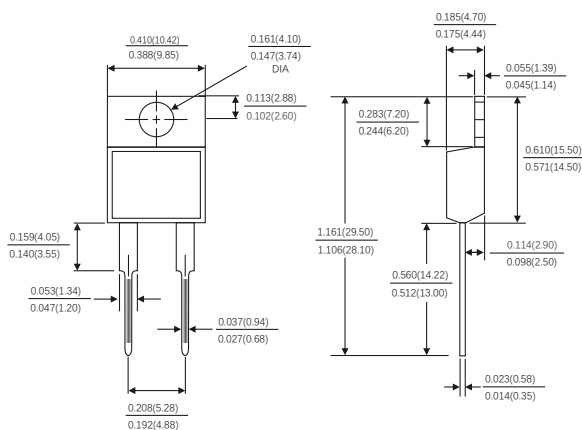


FIG.4-TYPICAL REVERSE CHARACTERISTICS



TO-220AC



Dimensions in inches and (millimeters)

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