

High Efficiency Rectifiers

Reverse Voltage - 1000V

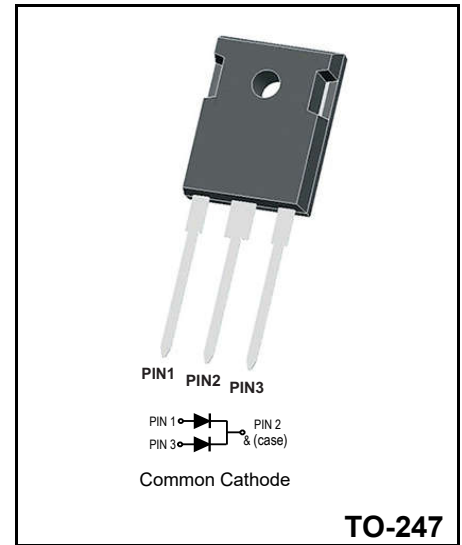
Forward Current - 40A

Features

- ◆ Glass passivated chip junctions
- ◆ High Speed recovery time for switching mode application
- ◆ High Forward Surge Capability
- ◆ Low Reverse Current
- ◆ Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

- ◆ Leads: Solderable per mil-std-202, Method 208
- ◆ Polarity: as marked
- ◆ Mounting torque: 5 in-lbs maximum
- ◆ Terminals: Puretin plated
- ◆ Weight: 5.85 grams



Maximum Ratings & Electrical Characteristics

Rating	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
DC Blocking Voltage	V_{DC}	1000	V
Average Forward Current per device per diode	I_F	40 20	A
Max.Forward Surge Current ,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	500	A
Typical Forward Voltage at $I_F=20A$	V_F	2.0	V
Max. DC Reverse Current at Rated DC Blocking Voltage	I_R	5 250	μA
Typical Reverse Recovery Time (Note 1)	T_{RR}	100	nS
Typical Thermal Resistance(Note 2)	$R_{\theta-JC}$	1.5	$^{\circ}C/W$
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

NOTES:

1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
2. Thermal resistance from junction to case.

Ratings and Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

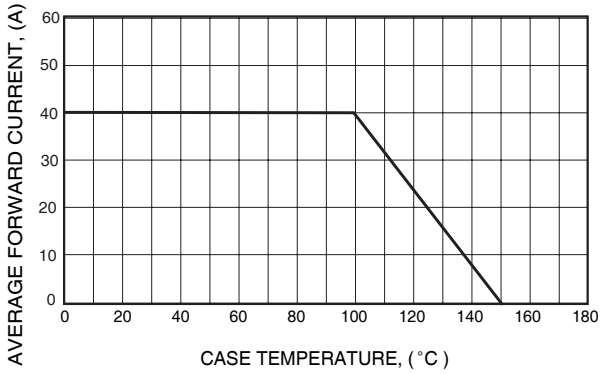


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

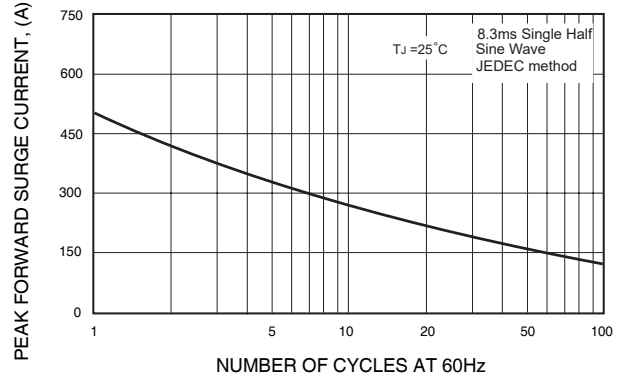


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

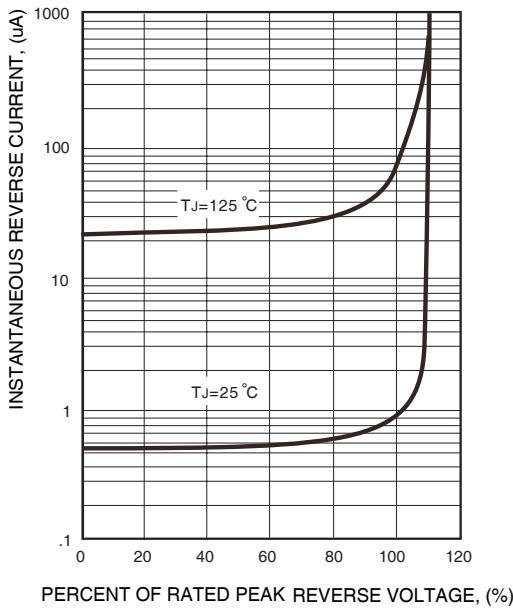
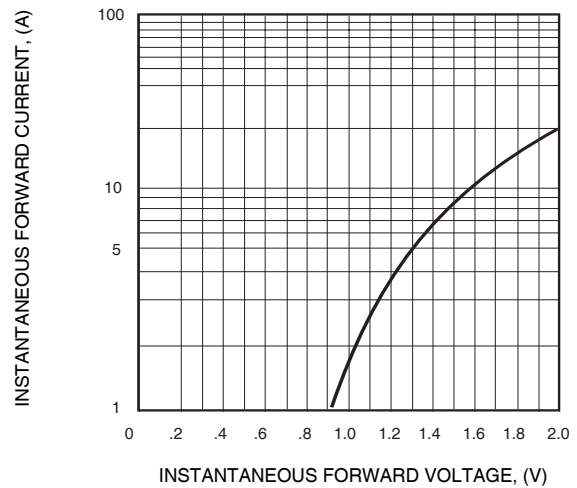


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



Package Outline Dimensions Millimeters

TO-247

Dimensions in millimeters

