

**VOLTAGE RANGE: 200 - 600V**

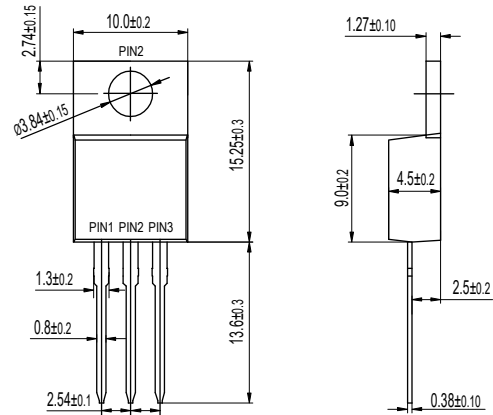
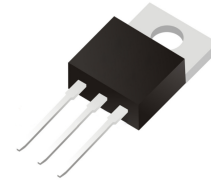
**CURRENT: 25A**

### Features

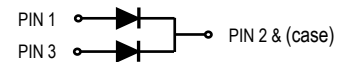
- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- Lead free in compliance with EU RoHS 2011/65/EU directive

### Mechanical Data

- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams



TO-220AB



### Maximum Ratings And Electrical Characteristics $T_A = 25^\circ\text{C}$

RATINGS	SYMBOL	SF2502CT	SF2504CT	SF2506CT	UNIT
Maximum repetitive reverse voltage	V <sub>RRM</sub>	200	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	400	600	V
Maximum average forward current	I <sub>AV</sub>	25			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	300			A
Typical thermal resistance per diode (Note 1)	R <sub>θ-JC</sub>	2.5			°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150			°C
Storage temperature range	T <sub>STG</sub>	-55 to +150			°C
Typical forward voltage per leg at 12.5A	V <sub>F</sub>	1.00	1.30	1.70	V
Maximum average reverse current at rated DC blocking voltage	I <sub>R</sub>	5 250			μA
Typical reverse recovery time (Note 2)	T <sub>RR</sub>	35			nS

Notes: 1. Thermal resistance from junction to case.  
2. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

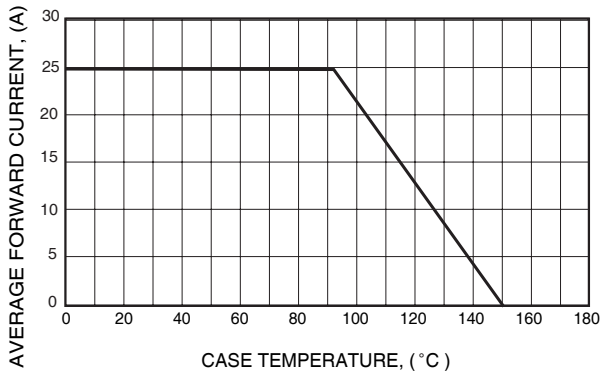


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

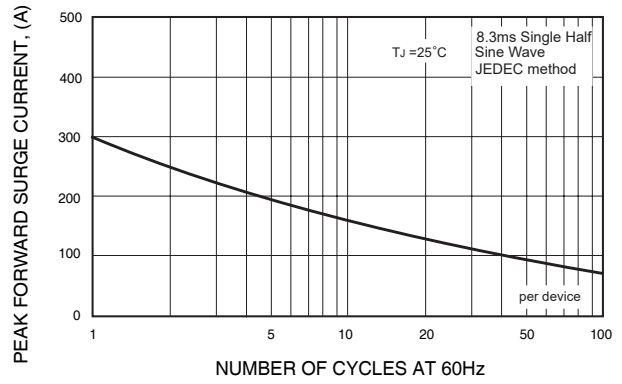


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

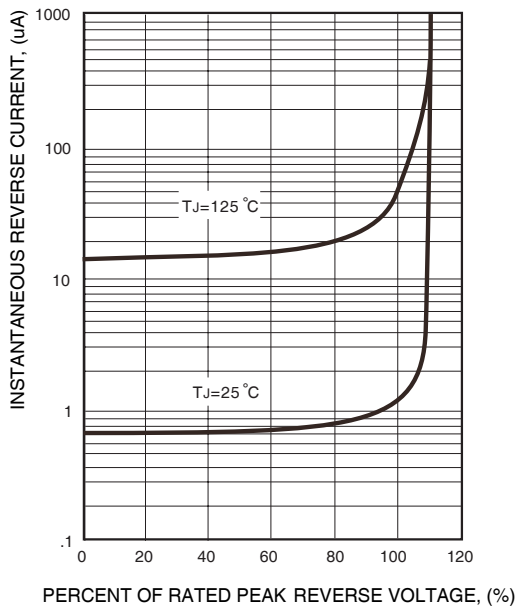


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

