

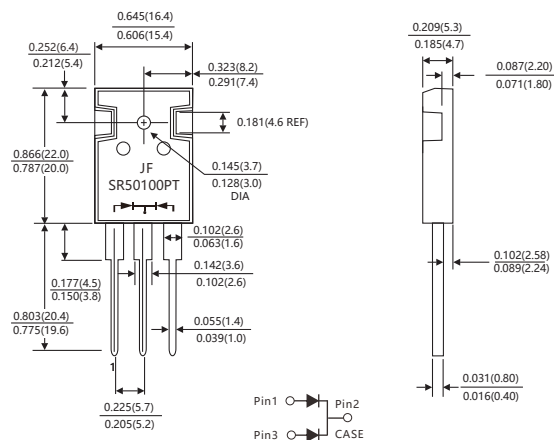
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed :260 °C /10 seconds, 0.25"(6.35mm)from case
- Component in accordance to 2015/863/EU

MECHANICAL DATA

- Case: TO-247 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked.
- Mounting Position: Any

TO-247



Dimensions in inches and (millimeters)

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} | 100 | | | | V | |
| Maximum RMS voltage | V _{RMS} | 69 | | | | V | |
| Maximum DC blocking voltage | V _{DC} | 100 | | | | V | |
| Maximum average forward rectified current(see Fig.1) | Per leg | 25.0 | | | | A | |
| | Total device | 50.0 | | | | | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 500 | | | | A | |
| Forward voltage at 25A per leg (Note 1) | V _F | TYP. | 0.80 | MAX. | 0.85 | V | |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | I _R | T _J =25°C | TYP. | - | MAX. | 5.0 | uA |
| | | T _J =125°C | TYP. | - | MAX. | 5.0 | mA |
| Typical thermal resistance (Note 2) | R _{θJC} | 0.23 | | | | °C/W | |
| Operating junction temperature range | T _J | - 55 to+175 | | | | °C | |
| Storage temperature range | T _{STG} | - 55 to+175 | | | | °C | |

Notes: 1.Pulse test: 300 us pulse width,1% duty cycle
2.Thermal resistance from junction to case

RATINGS AND CHARACTERISTICS OF SR50100PT

FIG.1-FORWARD CURRENT DERATING CURVE

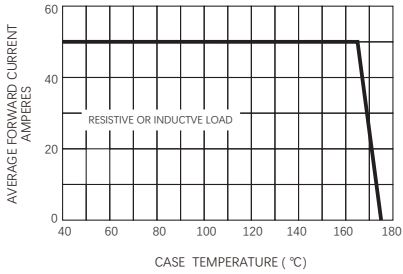


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

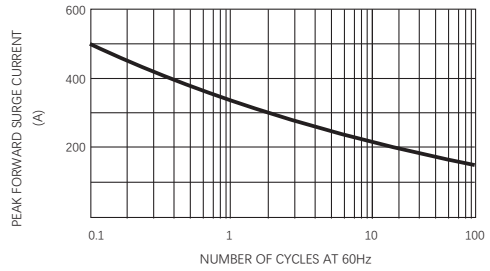


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

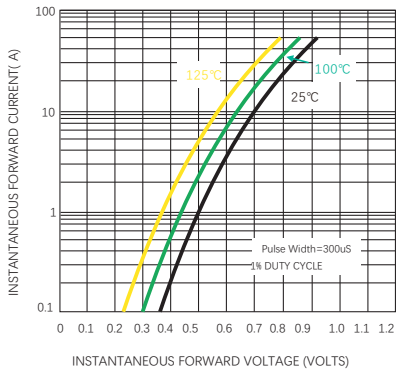
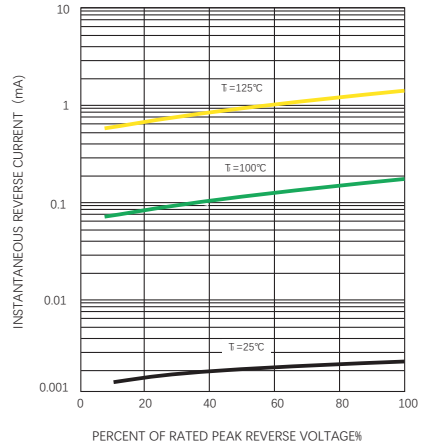


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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