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SUPERFAST RECOVERY RECTIFIER

VOLTAGE 400 Volts **CURRENT** 20 Amperes

TO-247AD / TO-3P

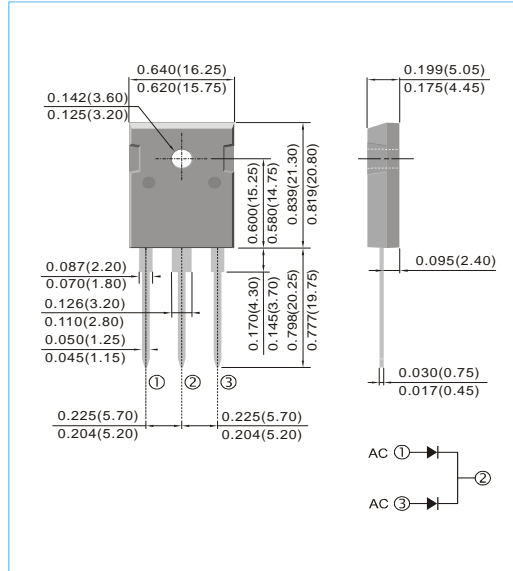
Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability.
- High surge capacity.
- Surge fast recovery times, high voltage.
- Epitaxial chip construction.
- Lead free in comply with EU RoHS 2002/95/EC directives.

MECHANICAL DATA

- Case: TO-3P molded plastic.
- Terminals: Lead solderable per MIL-STD-750, Method 2026.
- Polarity: As marked.
- Mounting Position: Any.
- Weight: 0.022 ounce, 6.37 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | VALUE | UNITS |
|--|-----------------|--------------|---------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 400 | V |
| Maximum RMS Voltage | V_{RMS} | 280 | V |
| Maximum DC Blocking Voltage | V_{DC} | 400 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 20 10 | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 150 | A |
| Maximum Forward Voltage at 10A | V_F | 1.3 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 5 | μA |
| Maximum Reverse Recovery Time (Notes 2) | T_{RR} | 40 | ns |
| Typical Junction Capacitance (Notes 1) | C_J | 91 | pF |
| Maximum Thermal Resistance (Notes 3) | $R_{\theta JC}$ | 2.5 | $^{\circ}C/W$ |
| Operating Junction Temperature Range | T_J | -55 to + 150 | $^{\circ}C$ |
| Storage Temperature Range | T_{STG} | -55 to + 150 | $^{\circ}C$ |

Notes :

1. Measured at 1MHz and applied reverse voltage of 4.0VDC.
2. Reverse recovery test conditions : $I_F=0.5A, I_R=1A, I_{RR}=0.25A$
3. Semi-infinite heatsink.



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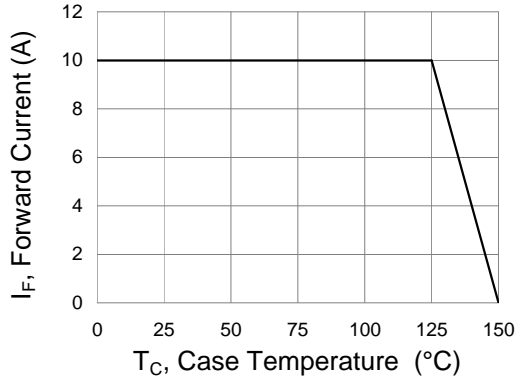


Fig.1 Forward Current Derating Curve

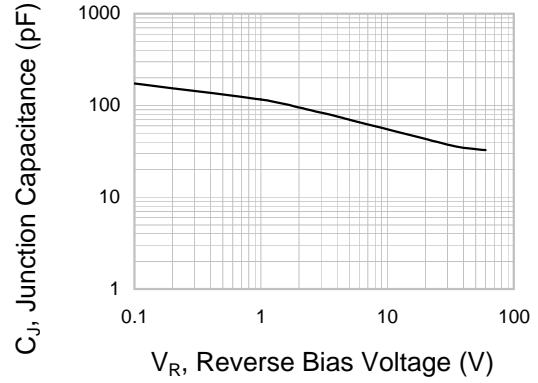


Fig.2 Typical Junction Capacitance

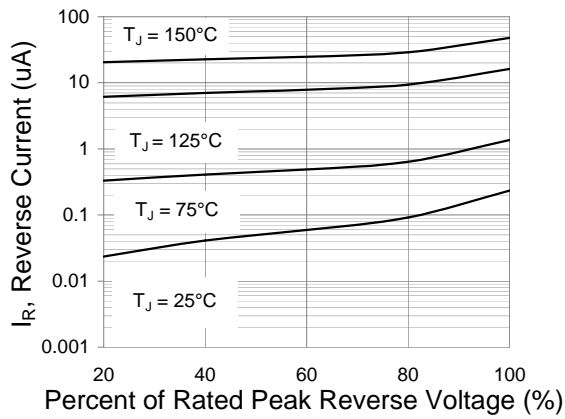


Fig.3 Typical Reverse Characteristics

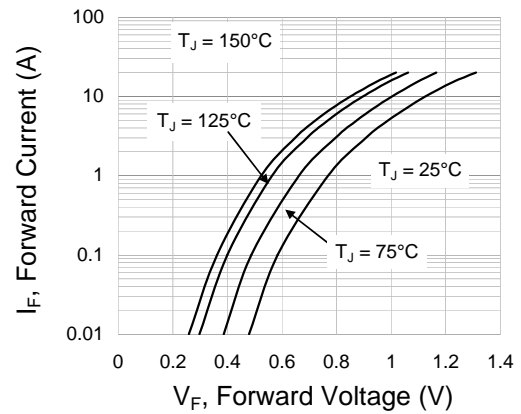


Fig.4 Typical Forward Characteristics



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