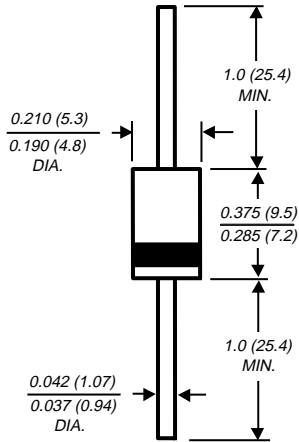


SUF15G AND SUF15J

ULTRAFAST EFFICIENT RECTIFIER

Reverse Voltage - 400 and 600 Volts Forward Current - 1.5 Amperes

Case Style GP20



Dimension in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junction
- ◆ Superfast recovery time for high efficiency
- ◆ High forward surge current capability
- ◆ Low leakage current
- ◆ Low power loss
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, at 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Plastic molded body over passivated chip

Terminals: Plated axial leads solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.03 ounces, 0.8 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | SUF15G | SUF15J | UNITS |
|---|------------------------------------|--------------|--------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 400 | 600 | Volts |
| Maximum RMS voltage | V_{RMS} | 280 | 420 | Volts |
| Maximum DC blocking voltage | V_{DC} | 400 | 600 | Volts |
| Maximum average forward rectified current, 0.375" (9.5mm) lead length at $T_A=50^\circ\text{C}$ | $I_{(AV)}$ | 1.5 | | Amps |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=50^\circ\text{C}$ | I_{FSM} | 50.0 | | Amps |
| Maximum instantaneous forward voltage at 1.5A | V_F | 1.80 | | Volts |
| Maximum peak reverse current at rated peak reverse voltage | I_R | 10.0 | 100 | μA |
| | | | | |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 35.0 | | ns |
| Typical junction capacitance (NOTE 2) | C_J | 35 | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 65.0 20.0 | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | $^\circ\text{C}$ |

NOTES:

- (1) Reverse recovery test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES SUF15G AND SUF15J

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

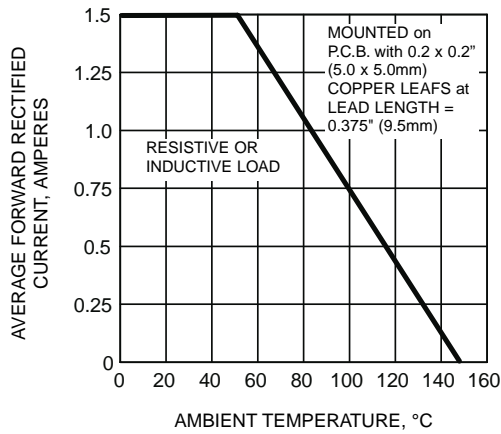


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

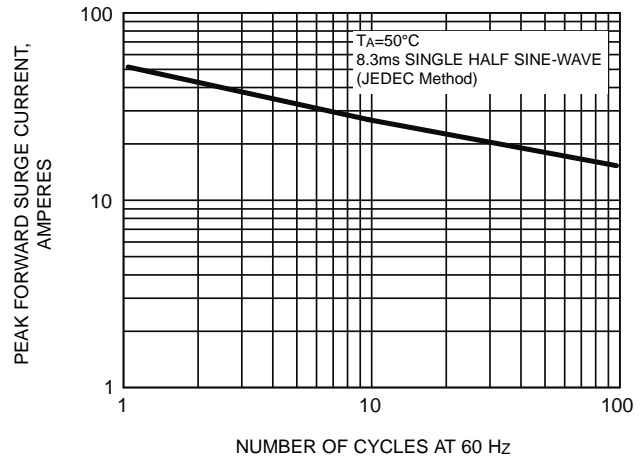


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

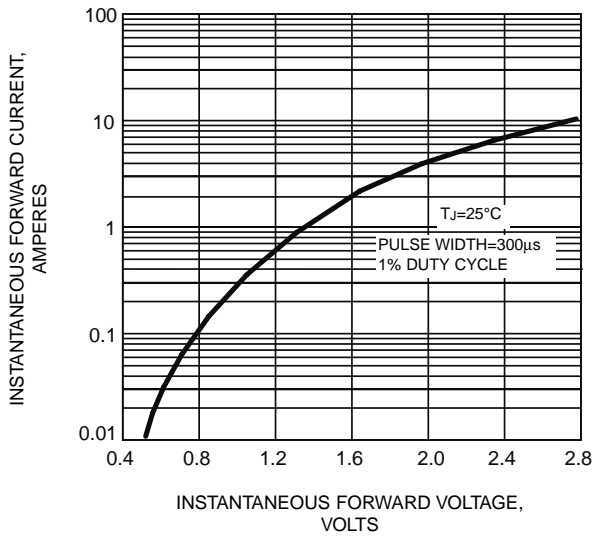


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

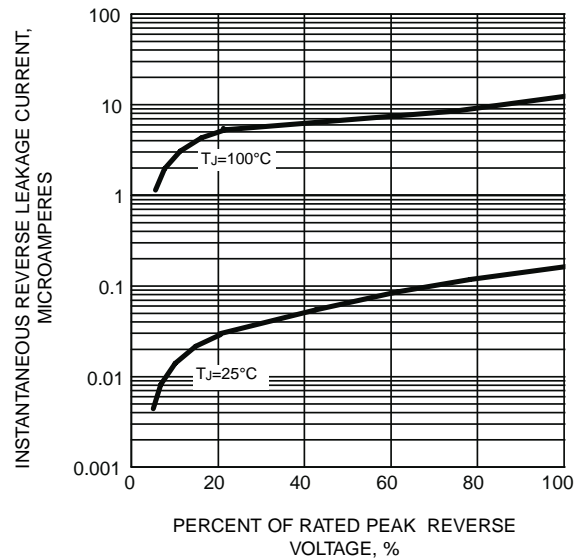


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

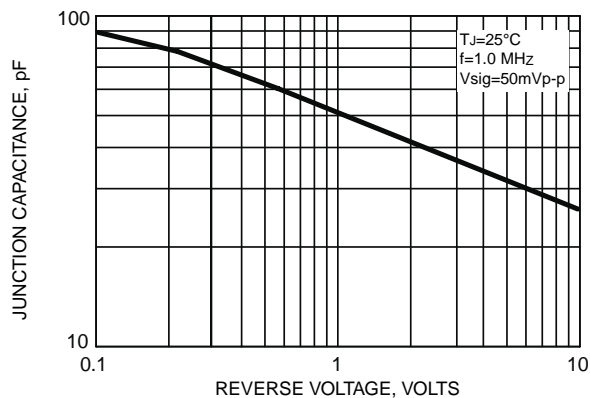


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

