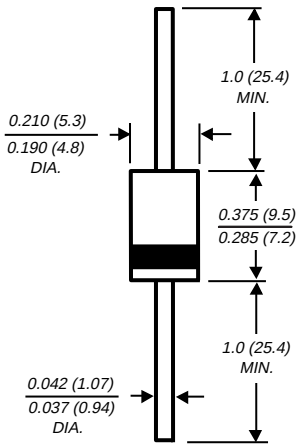
SUF15G AND SUF15J

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°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°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 T_A=25°C T_A=100°C	I_R	10.0 100		µA
Maximum reverse recovery time (NOTE1)	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		°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150		°C

NOTES:
(1) Reverse recovery test condition: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(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

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RATINGS AND CHARACTERISTIC CURVES SUF15G AND SUF15J

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

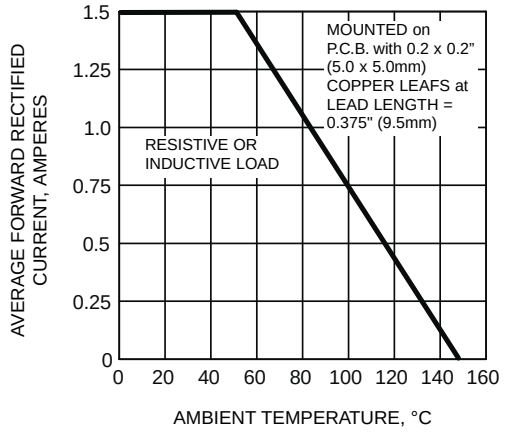


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

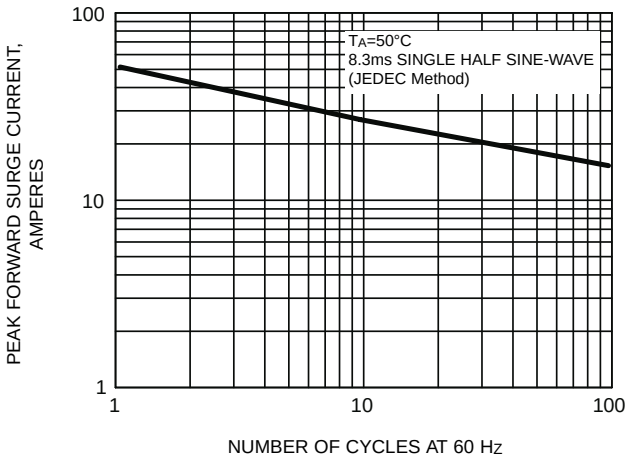


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

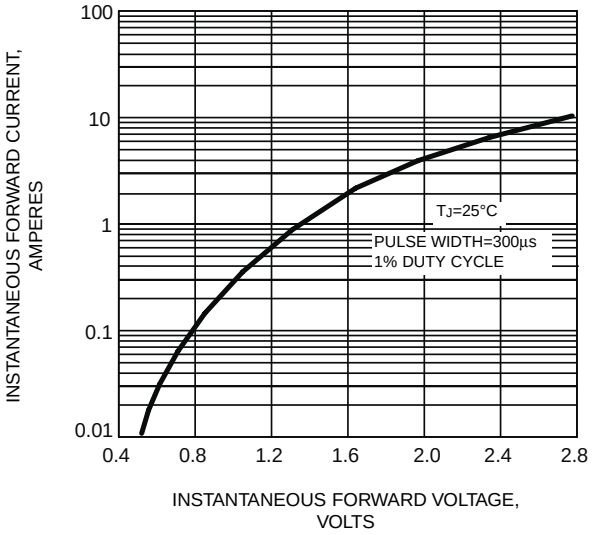


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

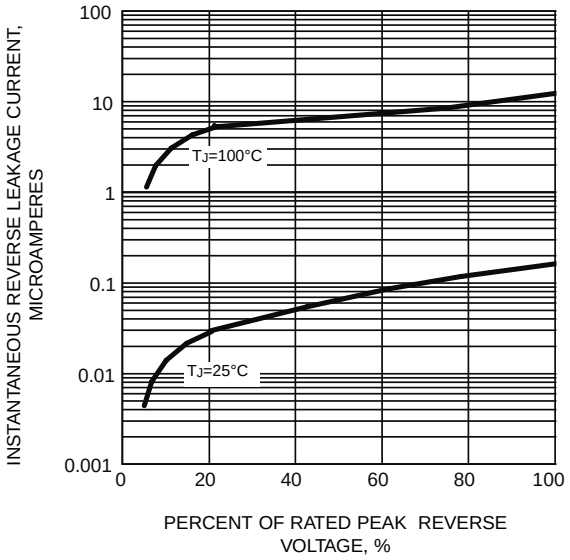


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

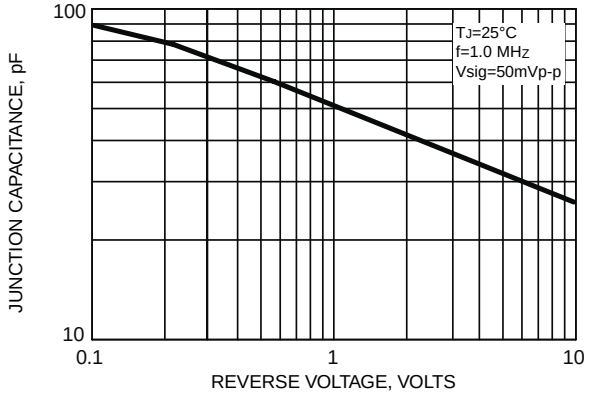
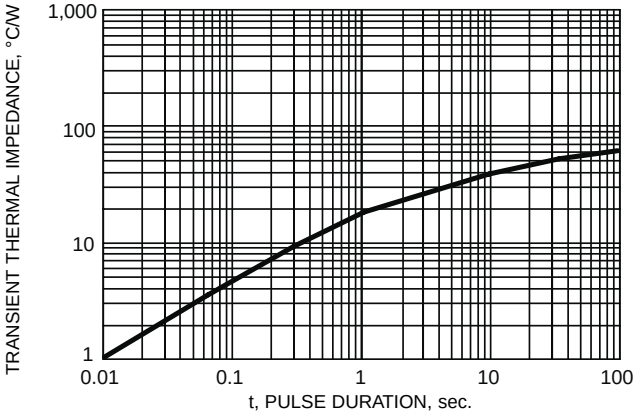


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



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