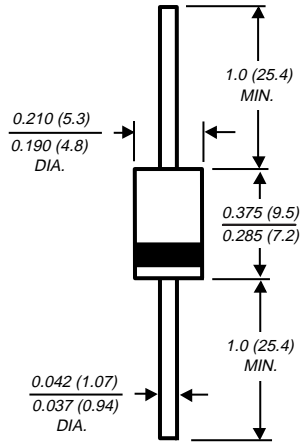


# SUF15G AND SUF15J

## 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.

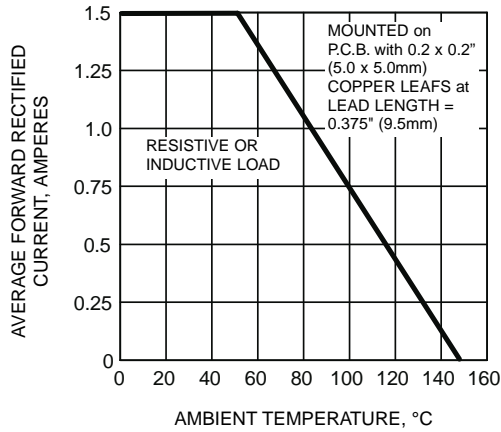
	SYMBOLS	SUF15G	SUF15J	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	600	Volts
Maximum RMS voltage	$V_{RMS}$	280	420	Volts
Maximum DC blocking voltage	$V_{DC}$	400	600	Volts
Maximum average forward rectified current, 0.375" (9.5mm) lead length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	1.5		Amps
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	$\mu\text{A}$
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:

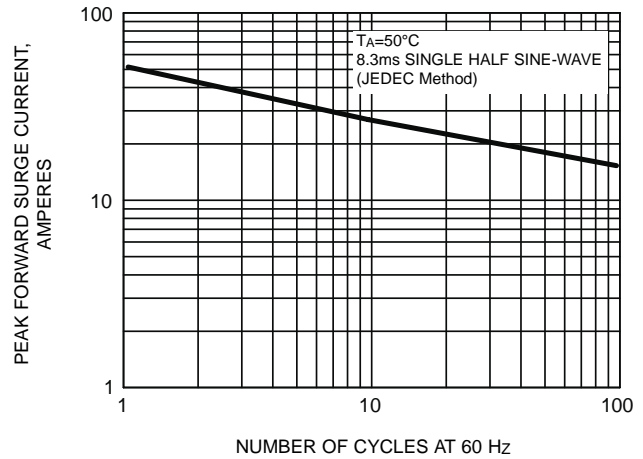
- (1) Reverse recovery test condition:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES SUF15G AND SUF15J

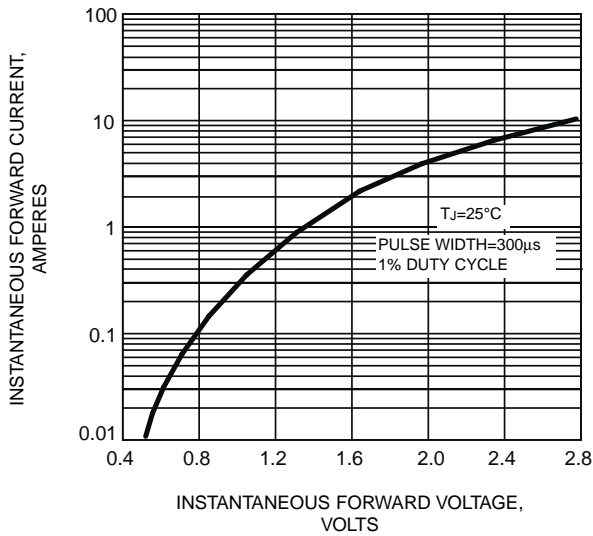
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



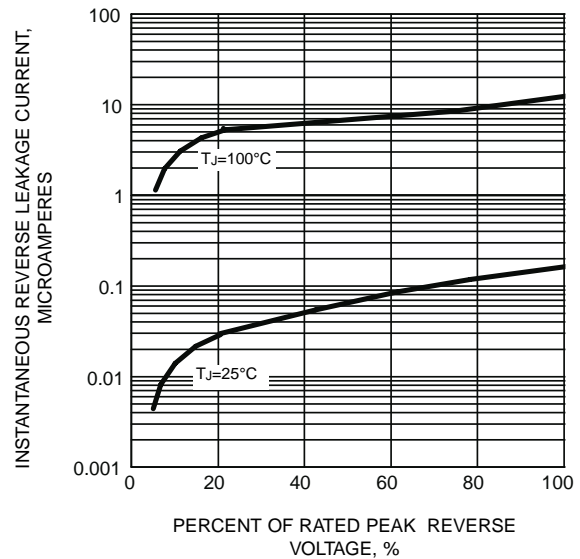
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



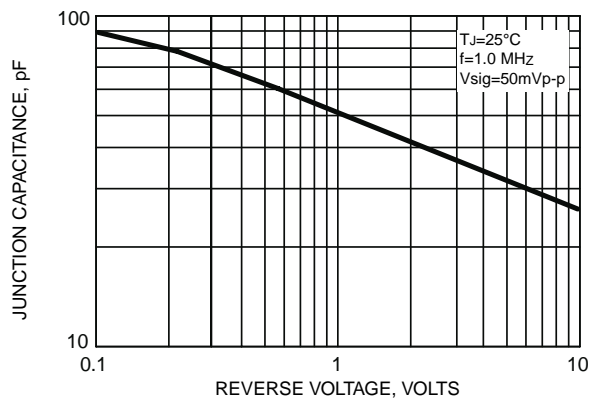
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

