

GENERAL PURPOSE SILICON RECTIFIER

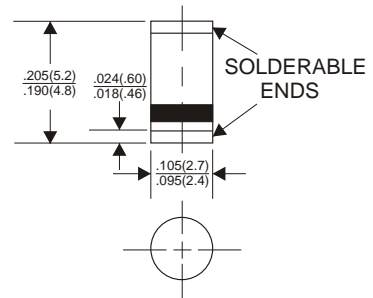
FEATURES

- Low cost construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability

MECHANICAL DATA

- **Case:** Transfer molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Polarity:** Color band denotes cathode end
- **Lead:** Plated axial lead ,solderable per MIL-STD-202E method 208C
- **Mounting position:** Any

SM-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

	SYMBOLS	DL	DL	DL	DL	DL	DL	DL	DL	DL	UNITS
		5391	5392	5393	5394	5395	5396	5397	5398	5399	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A=70^{\circ}C$	$I_{(AV)}$	1.5									Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50									Amps
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.1									Volts
Maximum DC Reverse Current at rated DC blocking voltage	I_R	$T_A=25^{\circ}C$									μ Amps
		$T_A=100^{\circ}C$									
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L=75^{\circ}C$	$I_{R(AV)}$	30									μ Amps
Typical Junction Capacitance(NOTE1)	C_J	20									pF
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	50									$^{\circ}C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175									$^{\circ}C$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

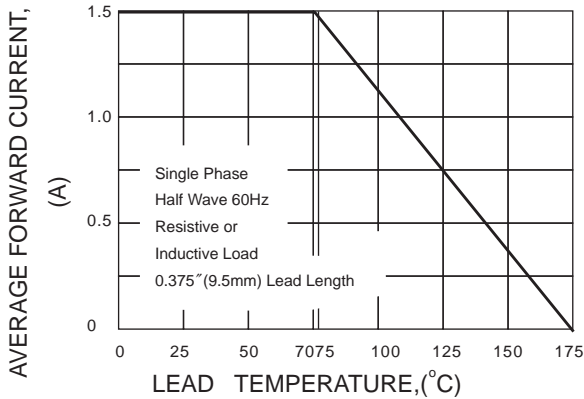


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

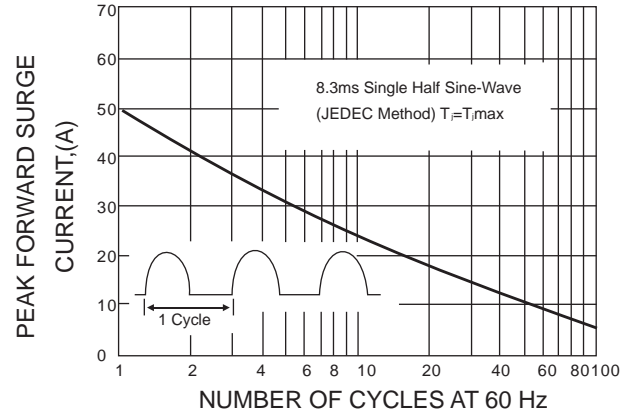


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

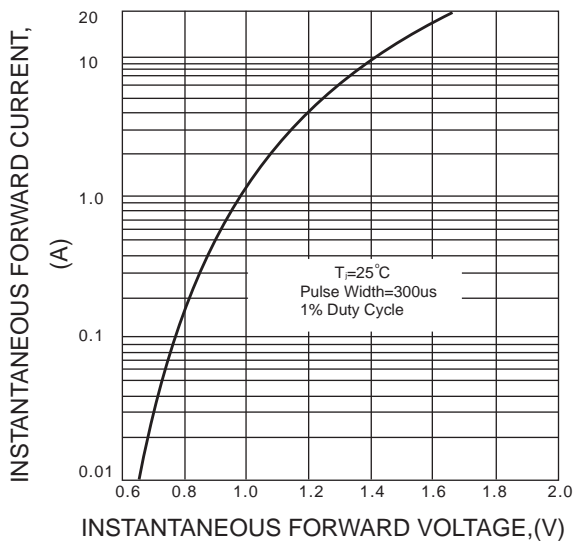


FIG.4-TYPICAL REVERSE CHARACTERISTICS

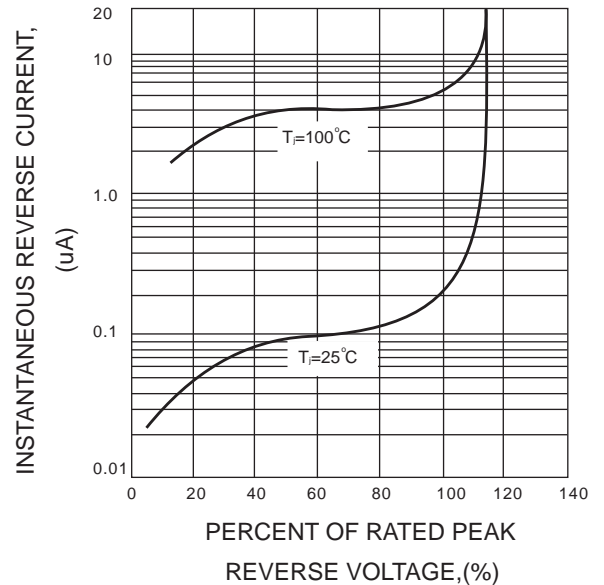


FIG.5-TYPICAL JUNCTION CAPACITANCE

