

SUF4001 THRU SUF4007

**HIGH EFFICIENT
PLASTIC SILICON RECTIFIER**
VOLTAGE:50 TO 1000V CURRENT: 1.0A



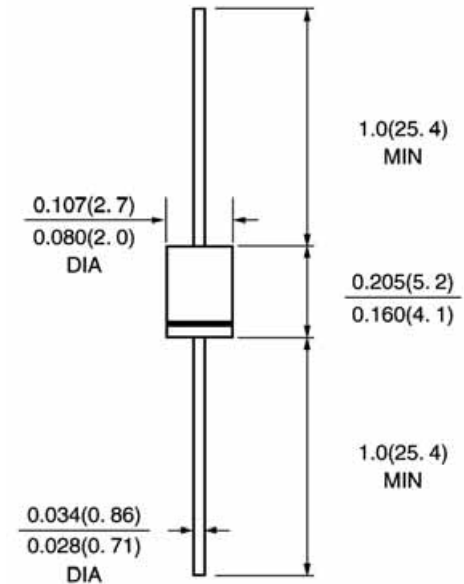
FEATURE

Low power loss
High surge capability
Ultra-fast recovery time for high efficiency
High temperature soldering guaranteed
250°C/10sec/0.375"lead length at 5 lbs tension

MECHANICAL DATA

Terminal:Plated axial leads solderable per MIL-STD 202E, method 208C
Case:Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity:color band denotes cathode
Mounting position:any

DO -41\DO-204AL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	SUF 4001	SUF 4002	SUF 4003	SUF 4004	SUF 4005	SUF 4006	SUF 4007	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V _{dc}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	I _{f(av)}	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	30.0							A
Maximum Forward Voltage at Forward current 1A Peak	V _f	1.0		1.4		1.7		V	
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I _r	10.0 100.0							μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50				75			nS
Typical Junction Capacitance (Note 2)	C _j	15				12			pF
Typical Thermal Resistance (Note 3)	R(ja)	50				60			°C/W
Storage and Operating Junction Temperature	T _{stg,Tj}	-50 to +125							°C

Note:

1. Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES SUF4001 THRU SUF4007

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

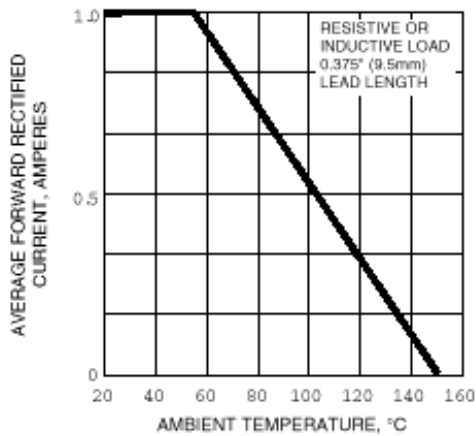


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

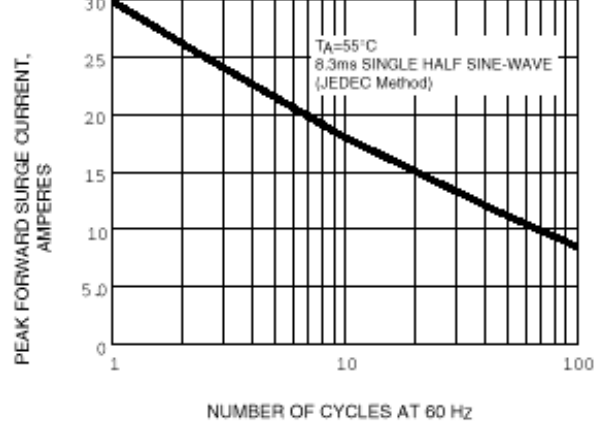


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

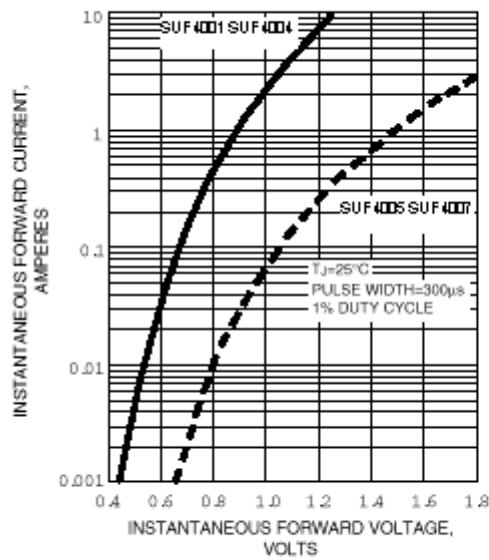


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

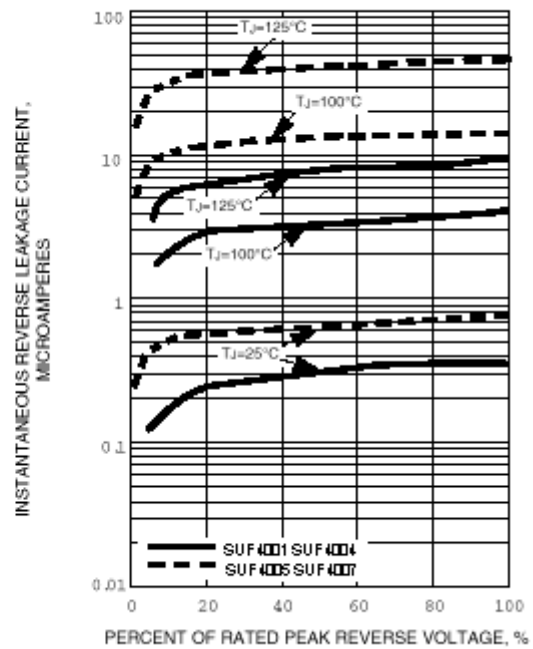


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

