

SURFACE MOUNT SILICON RECTIFIER

**05A1
THRU
05A7**


VOLTAGE RANGE 50 to 1000 Volts CURRENT 0.5 Ampere

FEATURES

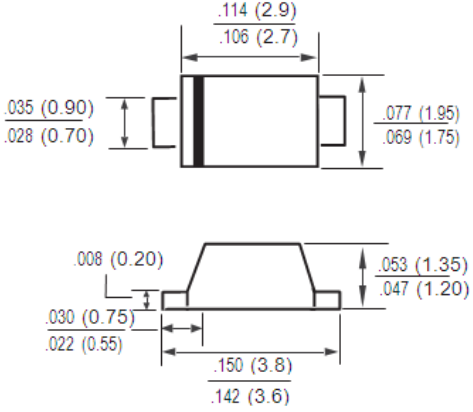
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.016 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0



SOD-123F



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	05A1	05A2	05A3	05A4	05A5	05A6	05A7	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 55°C	I _O	0.5							Amps
Peak Forward Surge Current I _{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	15							Amps
Maximum Thermal Resistance	(Note 2) R _{JL}	70							°C/W
	(Note 3) R _{JA}	120							°C/W
Typical Junction Capacitance (Note 1)	C _J	8							pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150							°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	05A1	05A2	05A3	05A4	05A5	05A6	05A7	UNITS	
Maximum Forward Voltage at 0.5ADC	V _F	1.1							Volts	
Maximum Full Load Reverse Current, Full cycle Average at TA=55°C	I _R	30							uAmps	
Maximum DC Average Reverse Current at Rated DC Blocking Voltage		@ TA = 25°C	5.0							uAmps
		@ TA = 100°C	50							uAmps

NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC
 2. Thermal resistance junction to terminal 6.0mm² copper pads to each terminal.
 3. Thermal resistance junction to ambient, 6.0mm² copper pads to each terminal.

2001-11

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RATING AND CHARACTERISTIC CURVES (05A1 THRU 05A7)

