

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 1.0 Ampere

FEATURES

- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability
- * Guard ring construction on die
- * Anti-ESD

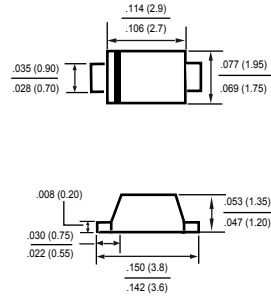
MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * Mounting position: Any
- * Weight: 0.01 gram (Approx.)
- * Flat lead frame

NEW RELEASE



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 (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SS20	SS30	SS40	SS50	SS60	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current @ T _A =75 °C	I _O	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	20					Amps
Typical Thermal Resistance (Note 3)	R _{θJA}	110					°C/W
	R _{θJL}	30					
Operating Temperature Range	T _J	150					°C
Storage Temperature Range	T _{STG}	-55 to + 150					°C
Typical Junction Capacitance (Note 1)	C _J	110					pF

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

CHARACTERISTICS	SYMBOL	SS20	SS30	SS40	SS50	SS60	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V _F	0.55			0.70		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	0.2					mAmps
	@T _A = 100°C	2					mAmps

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4 Volts.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
3. Mounted on PCB.

RATING AND CHARACTERISTICS CURVES (SS20 THRU SS60)

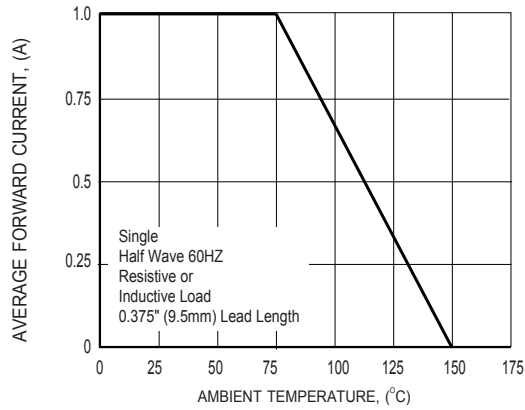


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

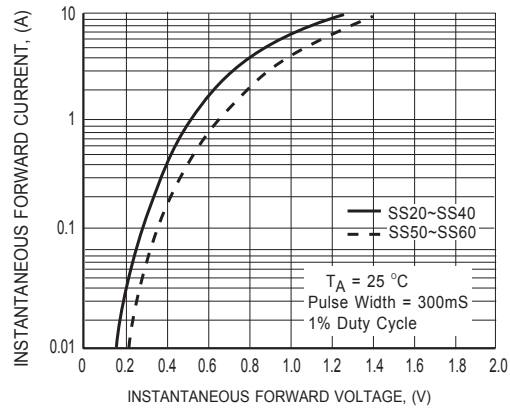


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

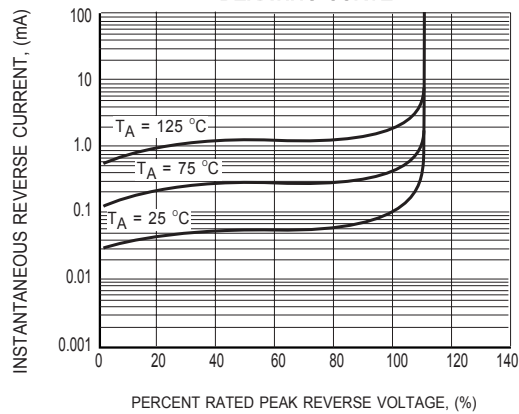


FIG.3 TYPICAL REVERSE CHARACTERISTICS

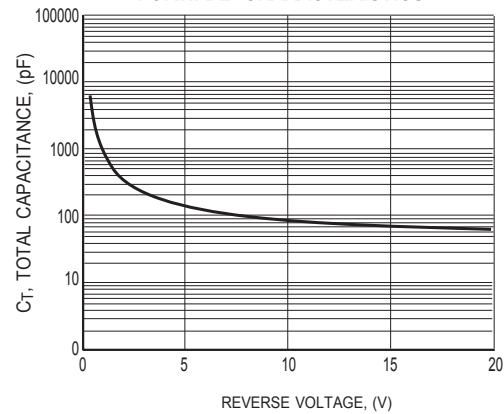


FIG.4 TYPICAL TOTAL CAPACITANCE

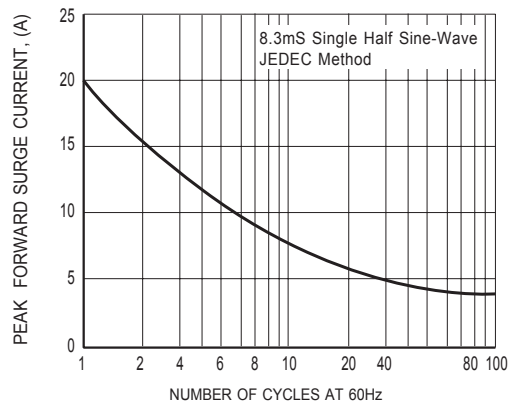
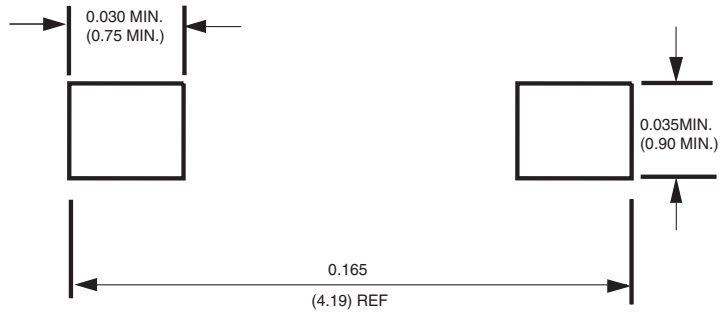


FIG.5 TYPICAL REVERSE CHARACTERISTICS

Mounting Pad Layout



Dimensions in inches and (millimeters)

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