

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 0.2 Ampere

FEATURES

- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability

MECHANICAL DATA

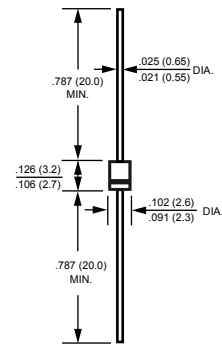
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.12 gram

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%.



R-1



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	02S20	02S30	02S40	02S50	02S60	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 .375" (9.5mm) lead length	I _O	0.2					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60					Amps
Typical Thermal Resistance (Note 3)	R _{θJA}	60					°C/W
	R _{θJL}	20					
Typical Junction Capacitance (Note 1)	C _J	110					pF
Operating Temperature Range	T _J	150					°C
Storage Temperature Range	T _{STG}	-55 to + 150					°C

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

CHARACTERISTICS	SYMBOL	02S20	02S30	02S40	02S50	02S60	UNITS
Maximum Instantaneous Forward Voltage at 0.2A DC	V_F	.28					Volts
Maximum Average Reverse Current @ $T_A = 25^{\circ}C$	I_R	1.0					mAmps
at Rated DC Blocking Voltage @ $T_A = 100^{\circ}C$		10					mAmps

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
3. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.

RATING AND CHARACTERISTICS CURVES (02S20 THRU 02S60)

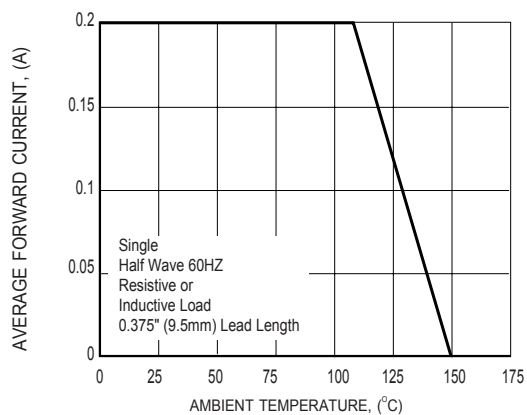


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

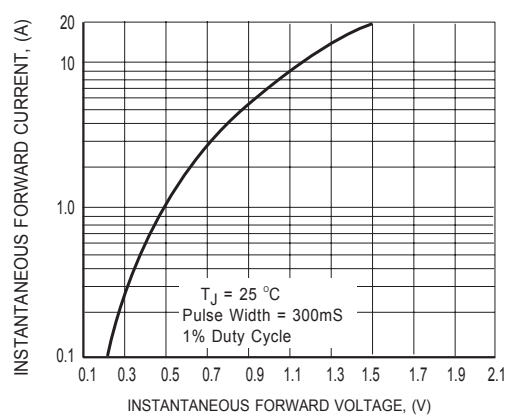


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

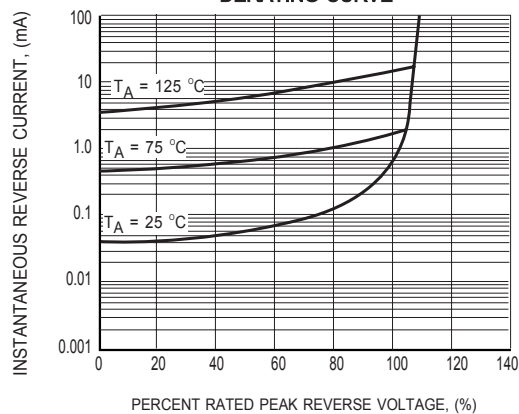


FIG.3 TYPICAL REVERSE CHARACTERISTICS

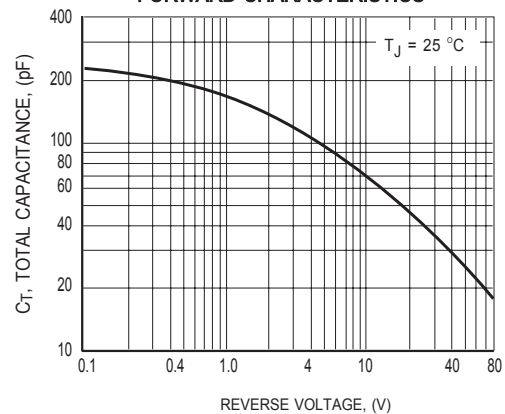


FIG.4 TYPICAL JUNCTION CAPACITANCE

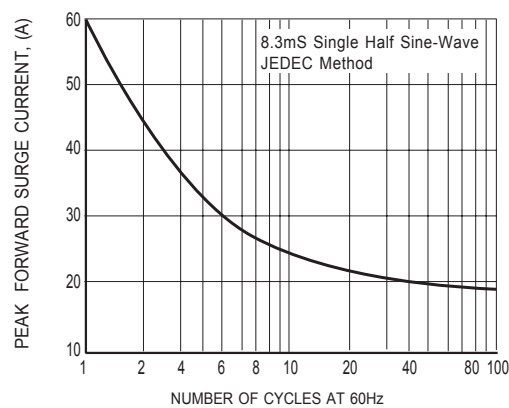


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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