DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

1S2 THRU 1S10

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 100 Volts *CURRENT - 1.0 Ampere*

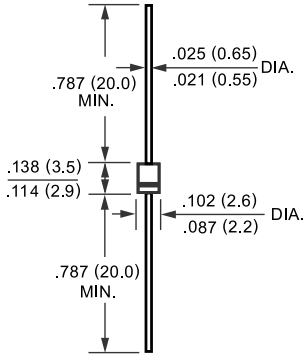
FEATURES

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

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.12 gram

R-1



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%.

		SYMBOL	1S2	1S3	1S4	1S5	1S6	1S8	1S10	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length		I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	35							Amps
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	.55			.70		0.85		Volts
Maximum DC Reverse Current	@T_A = 25°C	I_R	1.0							mAmps
at Rated DC Blocking Voltage	@T_A = 100°C		10							mAmps
Typical Thermal Resistance (Note 1)		$R\theta_{JA}$	50							°C/W
Typical Junction Capacitance (Note 2)		C_J	110							pF
Operating Temperature Range		T_J	-65 to + 150							°C
Storage Temperature Range		T_{STG}	-65 to + 150							°C

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.375"(9.5 mm) Lead Length.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (1S2 THRU 1S10)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

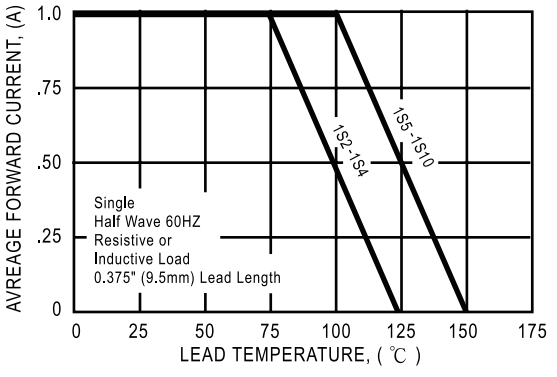


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

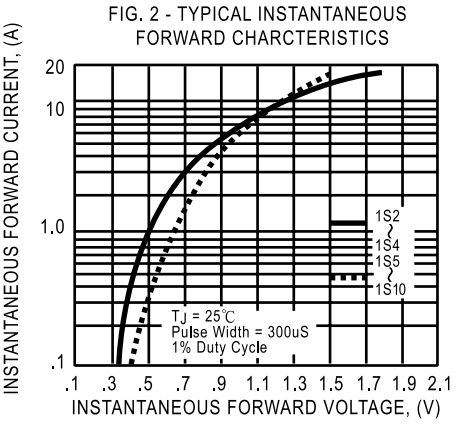


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

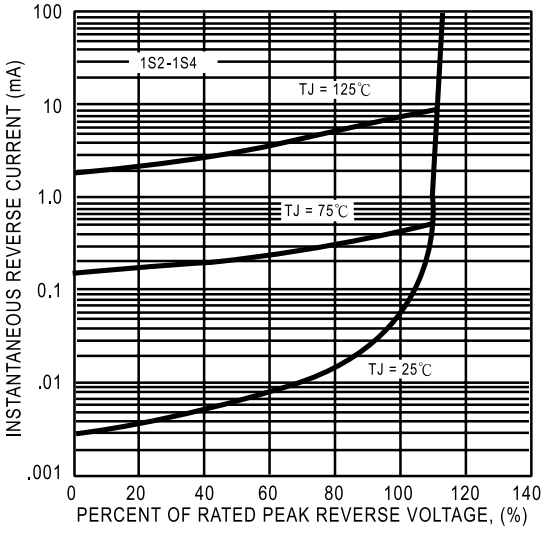


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

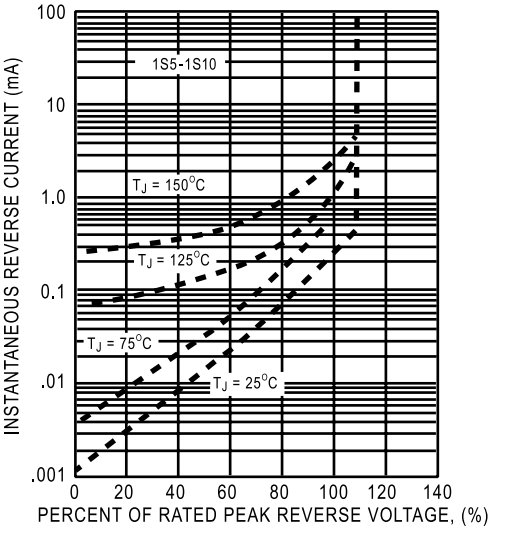


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

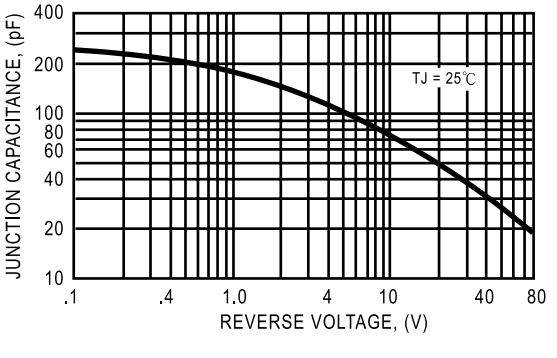
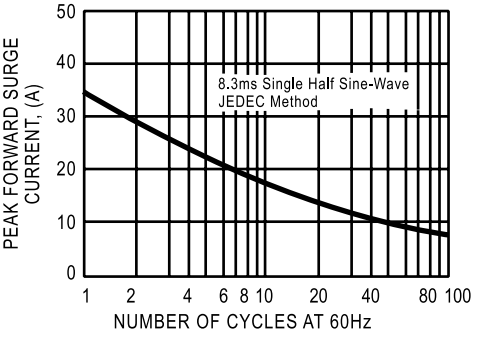


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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