



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

1S2  
THRU  
1S10

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

VOLTAGE RANGE - 20 to 100 Volts

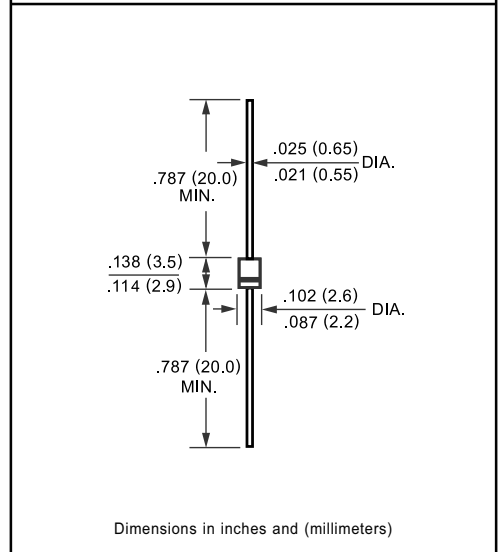
CURRENT - 1.0 Ampere

**FEATURES**

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



**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 <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) lead length	I <sub>O</sub>	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	35							Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>	.55		.70		0.85		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C							mAmps
		@T <sub>A</sub> = 100°C							mAmps
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	50							°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	110							pF
Operating Temperature Range	T <sub>J</sub>	-65 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	-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

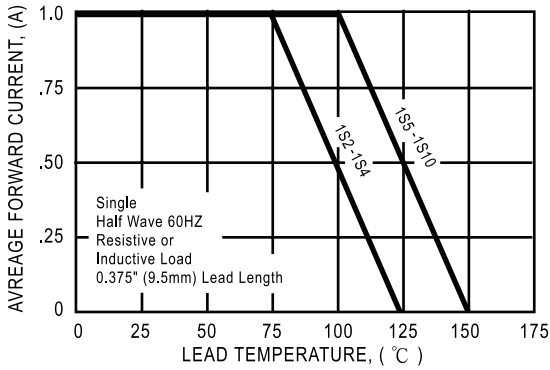


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

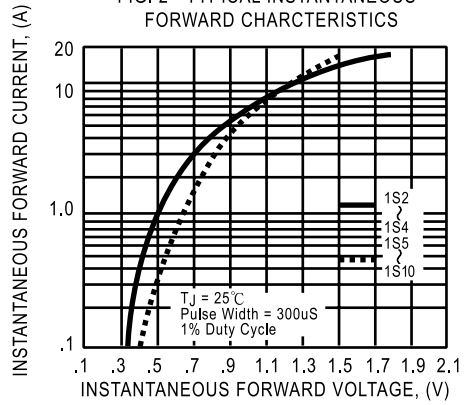


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

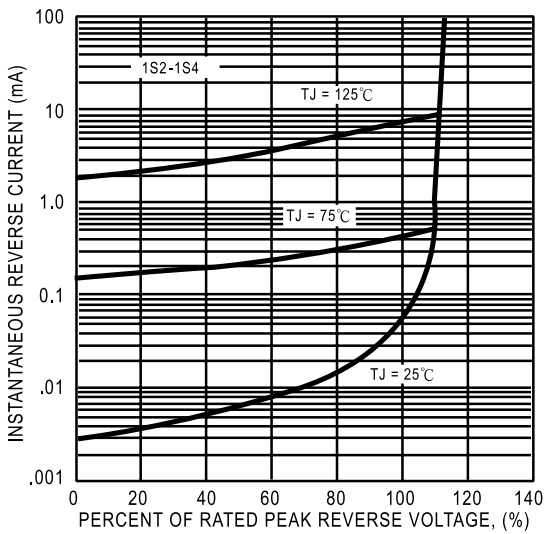


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

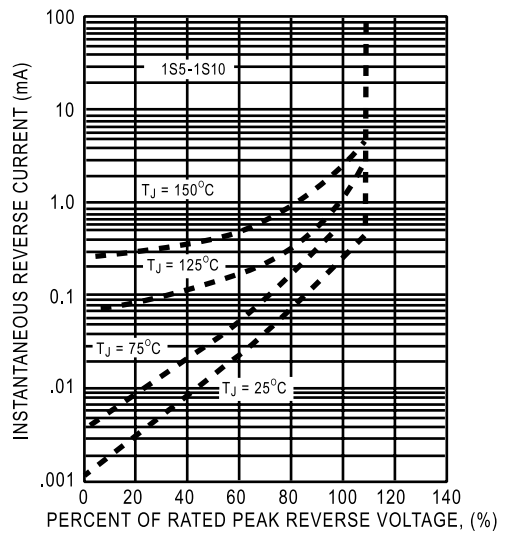


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

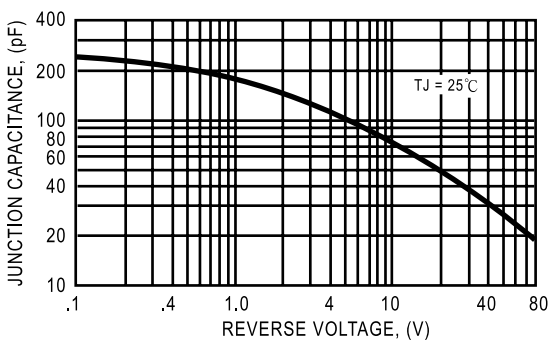
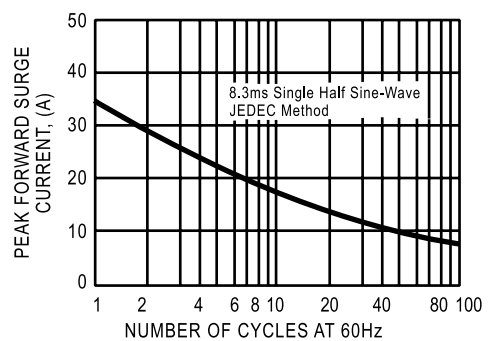


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



DC COMPONENTS CO., LTD.