

# WILLAS

1S80  
THRU  
1S100

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 80 to 100Volts CURRENT 1.0Ampere

**Pb Free Product**

### FEATURES

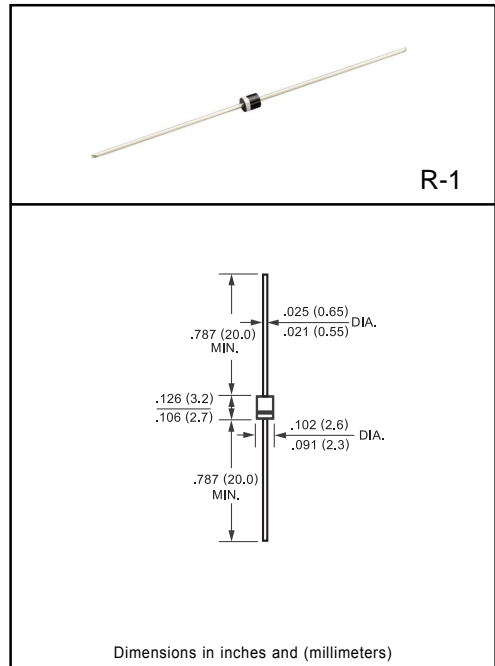
- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* 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%.



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

RATINGS	SYMBOL	1S80	1S100	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	80	100	Volts
Maximum RMS Voltage	VRMS	56	70	Volts
Maximum DC Blocking Voltage	VDC	80	100	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length	IO	1.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	20		Amps
Typical Thermal Resistance (Note 1)	RθJA	57		°C/W
Typical Junction Capacitance (Note 2)	CJ	110		pF
Operating Temperature Range	TJ	150		°C
Storage Temperature Range	TSTG	-65 to + 150		°C

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

CHARACTERISTICS	SYMBOL	1S80	1S100	UNITS
Maximum Instantaneous Forward Voltage at 1.0A D	VF	0.85		Volts
Maximum Average Reverse Current	IR	@ TA = 25°C		mA
at Rated DC Blocking Voltage		@ TJ = 125°C		
		10		mA

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

# RATING AND CHARACTERISTIC CURVES (1S80 THRU 1S100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

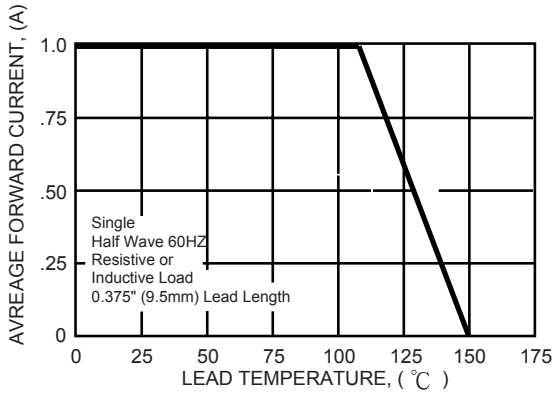


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

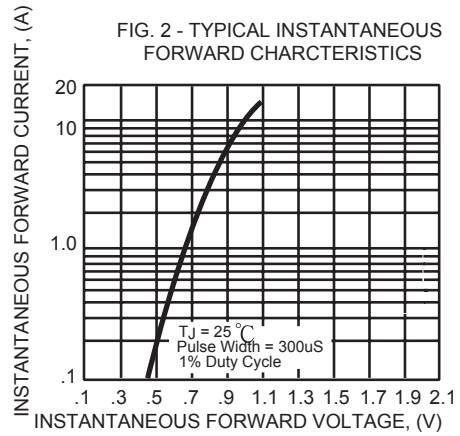


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

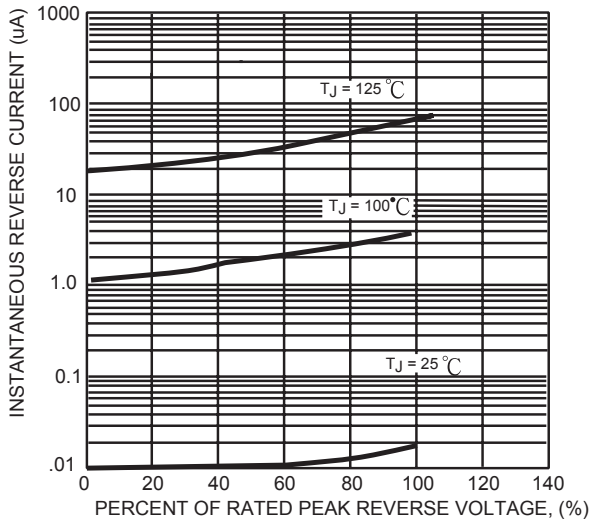


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

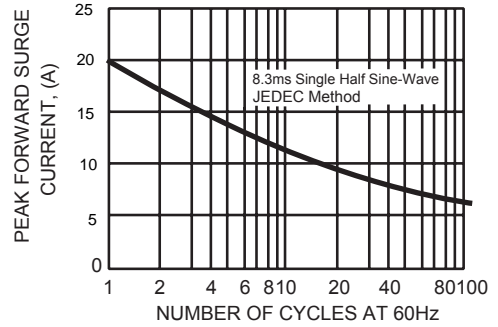


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

