

# 1S20 THRU 1S60

# FMS

## 1.0 AMP SCHOTTKY BARRIER RECTIFIERS



### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

### MECHANICAL DATA

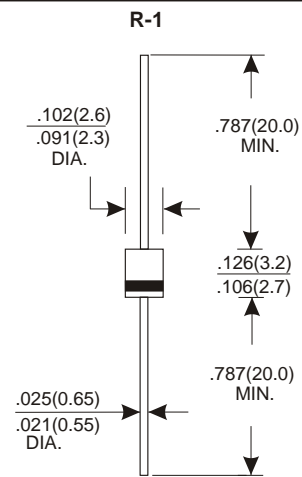
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.19 grams

### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

1.0 Ampere



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unieess otherwies specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	1S20	1S30	1S40	1S50	1S60	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V
Maximum RMS Voltage	14	21	28	35	42	V
Maximum DC Blocking Voltage	20	30	40	50	60	V
Maximum Average Forward Rectified Current						A
See Fig. 1	1.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30					A
Maximum Instantaneous Forward Voltage at 1.0A	0.55		0.70			V
Maximum DC Reverse Current Ta=25°C	1.0					mA
at Rated DC Blocking Voltage Ta=100°C	10					mA
Typical Junction Capacitance (Note1)	110			80		pF
Typical Thermal Resistance RqJA (Note 2)	10			15		°C/W
Operating Temperature Range Tj	-65 — +125			-65 — +150		°C
Storage Temperature Range Tstg	-65 — +150					°C

#### NOTES:

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

## RATING AND CHARACTERISTIC CURVES (1S20 THRU 1S60)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

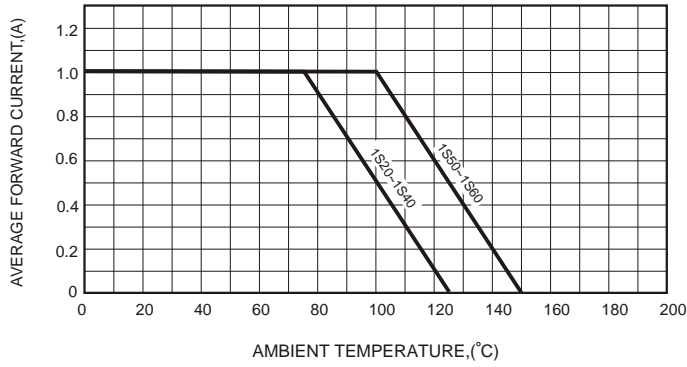


FIG.2-TYPICAL FORWARD CHARACTERISTICS

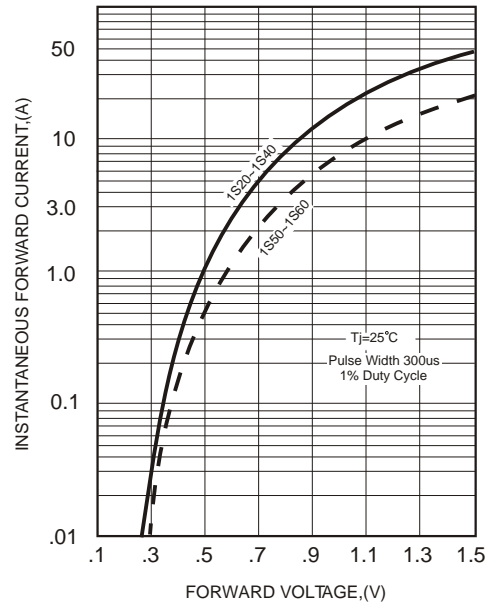


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

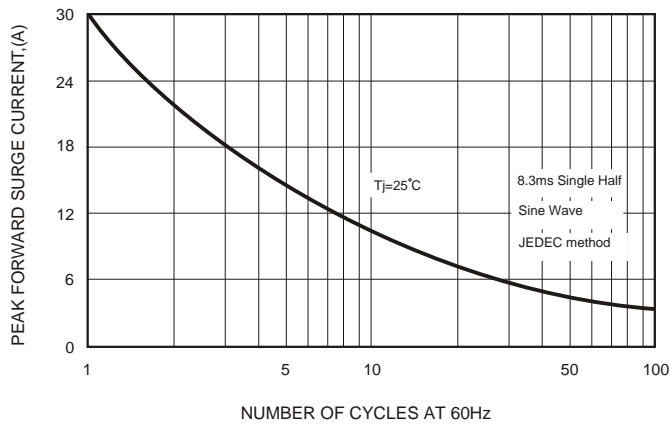


FIG.4-TYPICAL JUNCTION CAPACITANCE

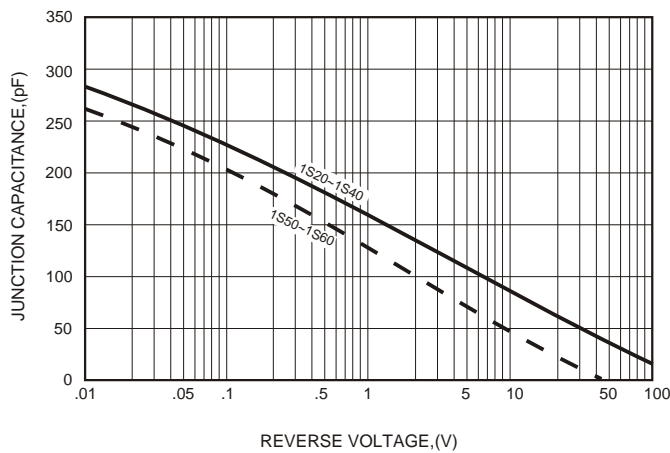


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

