1S20 THRU 1S60

1.0 AMP SCHOTTKY BARRIER RECTIFIERS

FMS



FEATURES

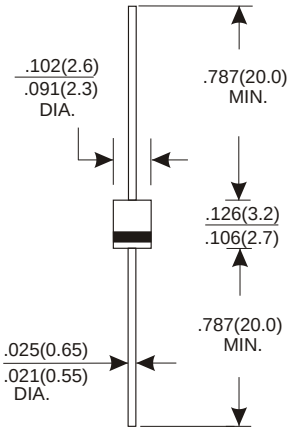
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Epitaxial construction

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

R-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25˚C ambient temperature uniess 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 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 T_J	-65 — +125			-65 — +150		˚C
Storage Temperature Range T_{STG}	-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

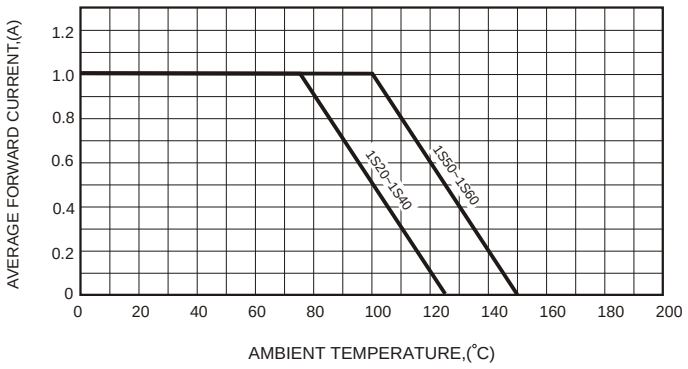


FIG.2-TYPICAL FORWARD CHARACTERISTICS

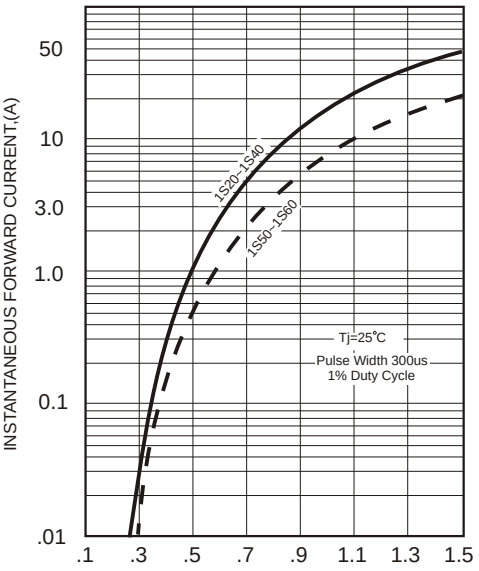


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

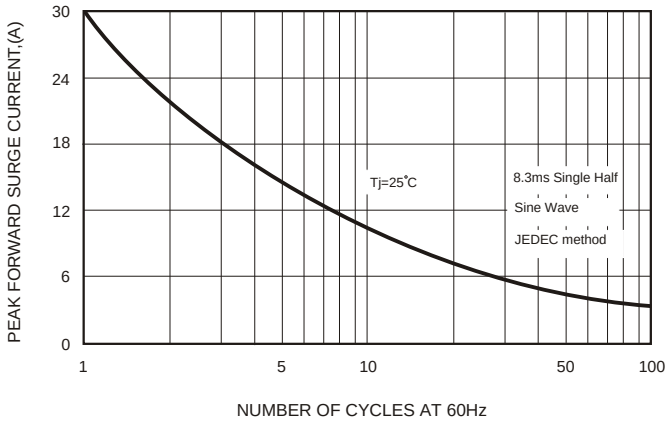


FIG.4-TYPICAL JUNCTION CAPACITANCE

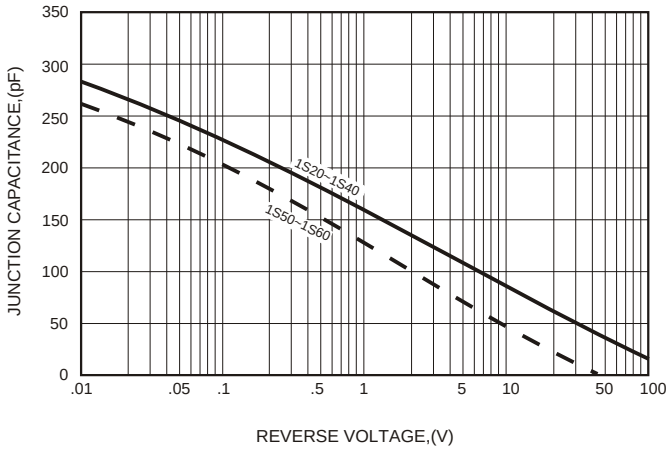


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

