



MBR140SF

1.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

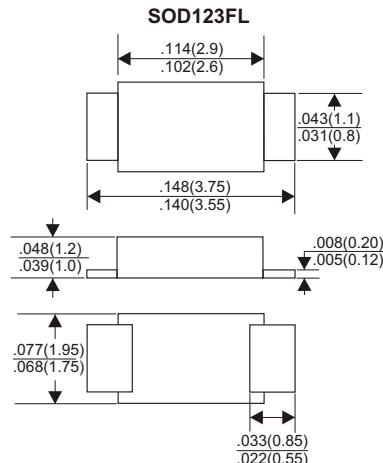
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

VOLTAGE RANGE

40 Volts

CURRENT

1.0 Ampere



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MBR140SF	UNITS
Maximum Recurrent Peak Reverse Voltage	40	V
Maximum RMS Voltage	28	V
Maximum DC Blocking Voltage	40	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	V
Maximum DC Reverse Current Ta=25°C	0.1	mA
at Rated DC Blocking Voltage Ta=100°C	5	mA
Typical Junction Capacitance (Note1)	170	pF
Typical Thermal Resistance R JA (Note 2)	80	°C/W
Operating Temperature Range Tj	-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.

RATING AND CHARACTERISTIC CURVES (MBR140SF)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

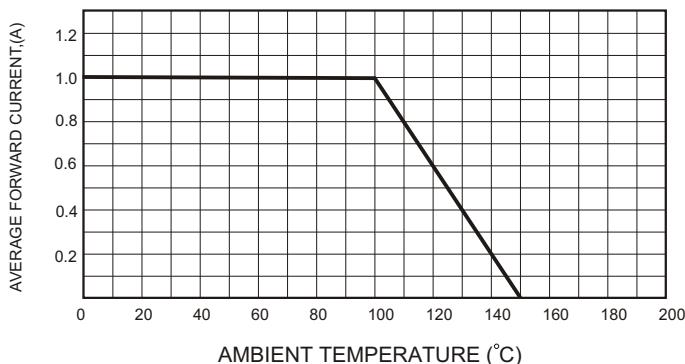


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

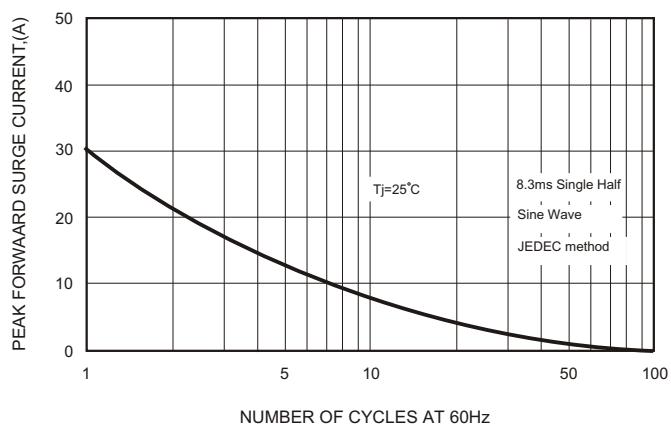


FIG.4-TYPICAL JUNCTION CAPACITANCE

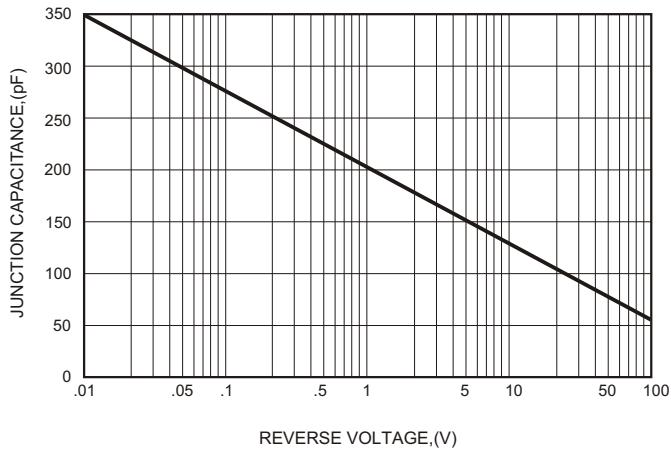


FIG.2-TYPICAL FORWARD CHARACTERISTICS

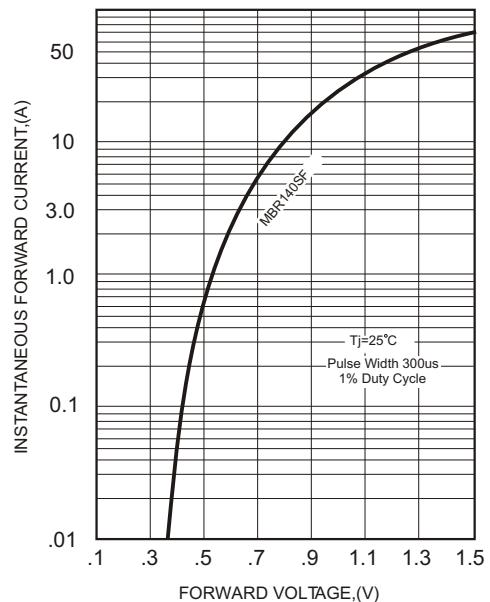


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

