

1S20 - 1SB0

SCHOTTKY BARRIER RECTIFIER DIODES

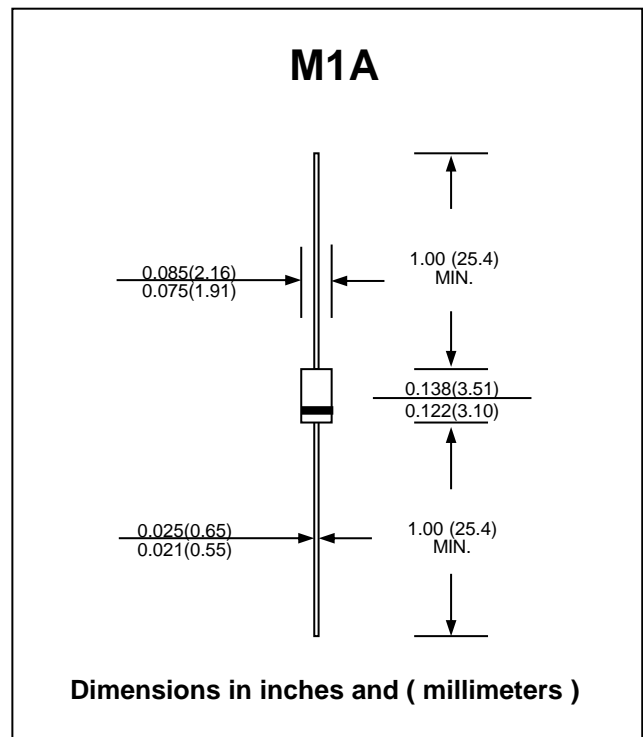
PRV : 20 - 100 Volts
I_o : 1.0 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low forward voltage drop
- * Low leakage
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : M1A Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202,
Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.20 gram (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	1S20	1S30	1S40	1S50	1S60	1S80	1SB0	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length	I _{F(AV)}	1.0							A
Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	35							A
Maximum Instantaneous Forward Voltage at I _F = 1.0 A	V _F	0.55		0.70		0.85		V	
Maximum Reverse Current at Ta = 25 °C	I _R	1.0							mA
Rated DC Blocking Voltage Ta = 100 °C	I _{R(H)}	10							mA
Typical Thermal Resistance (Note 1)	R _{θJA}	50							°C/W
Typical Junction Capacitance (Note 2)	C _J	110							pF
Operating Junction Temperature Range	T _J	- 65 to + 125			- 65 to + 150				°C
Storage Temperature Range	T _{STG}	- 65 to + 150							°C

Notes :

- (1) Thermal resistance from 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 (1S20 - 1SB0)

FIG.1 - FORWARD CURRENT DERATING CURVE

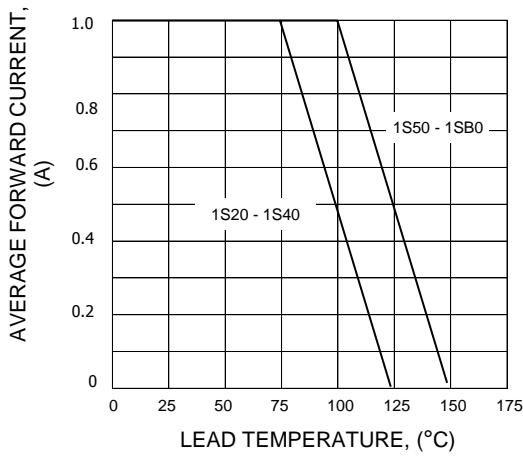


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

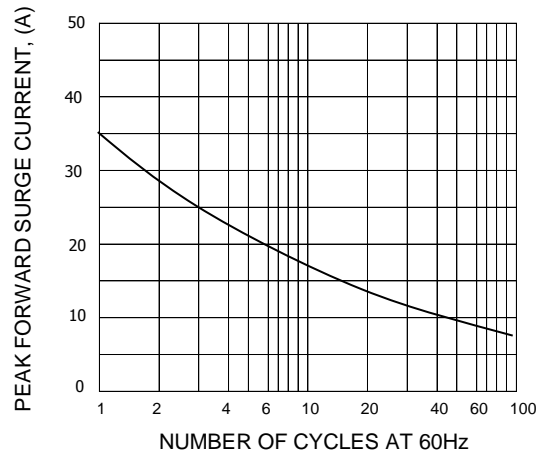


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

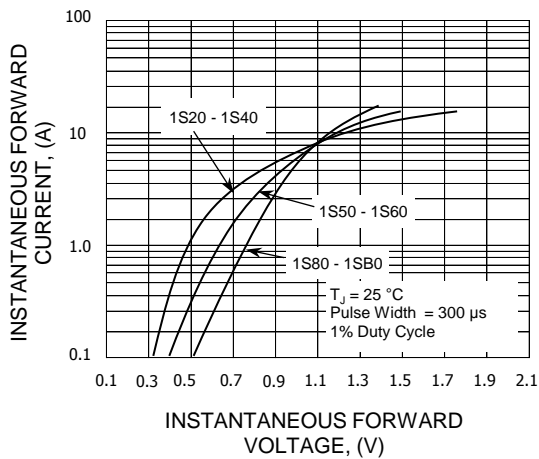


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

