

1S20 - 1S60

PRV : 20 - 60 Volts
I_o : 1.0 Ampere

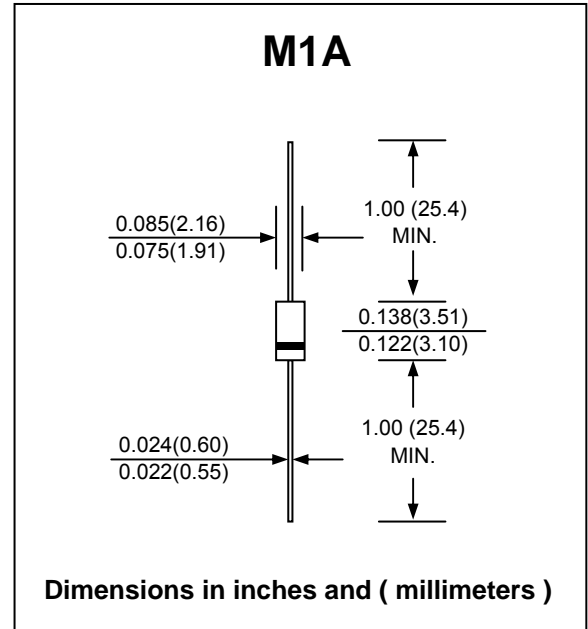
FEATURES :

- * 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)

SCHOTTKY BARRIER RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	1S20	1S30	1S40	1S50	1S60	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	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		V	
Maximum Reverse Current at $T_a = 25$ °C	I_R	1.0					mA
Rated DC Blocking Voltage $T_a = 100$ °C	$I_{R(H)}$	10					mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	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 - 1S60)

FIG.1 - FORWARD CURRENT DERATING CURVE

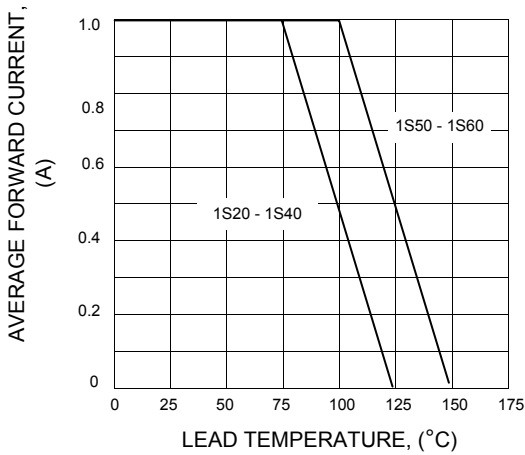


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

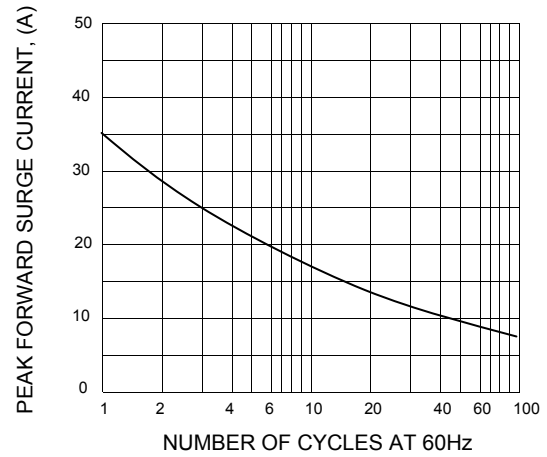


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

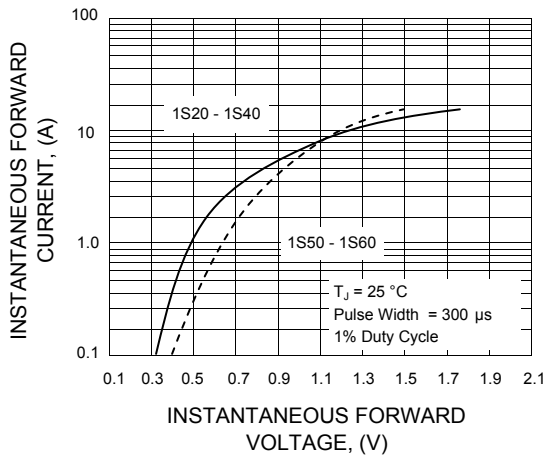


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

