1S20 - 1S60

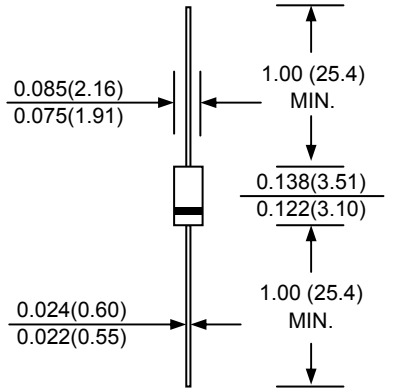
SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 20 - 60 Volts
Io : 1.0 Ampere

FEATURES :
* High current capability
* High surge current capability
* High reliability
* High efficiency
* Low power loss
* Low forward voltage drop
* Low leakge
* 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)

M1A



Dimensions in inches and (millimeters)

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 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)	$R_{\Theta JA}$	50					°C/W
Typical Jucntion Capacitace (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 revers voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (1S20 - 1S60)

FIG.1 - FORWARD CURRENT DERATING CURVE

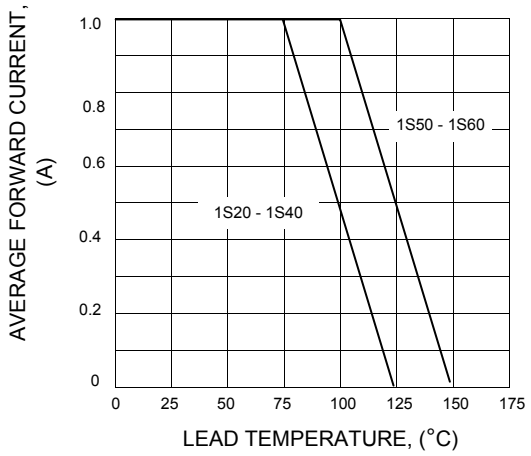


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

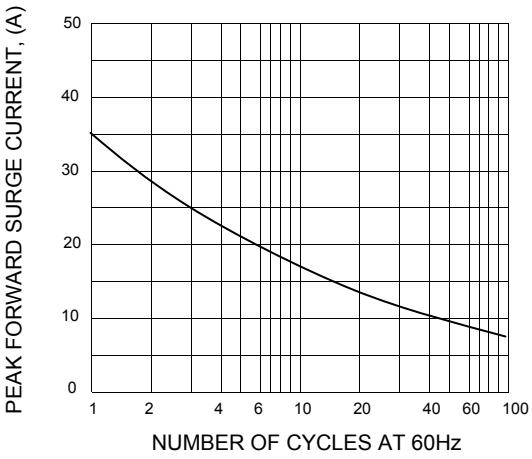


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

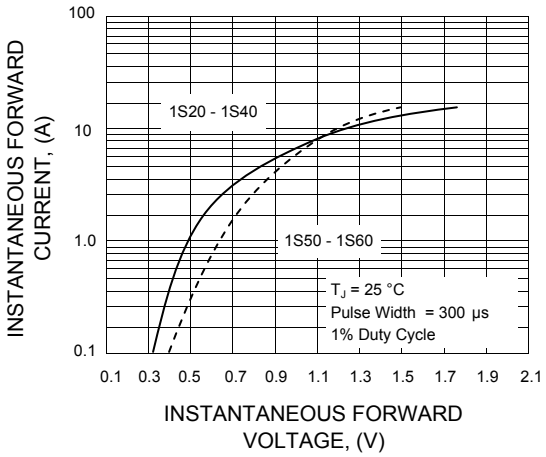


FIG.4 - TYPICAL REVERSE CHARACTERISTICS