

1SR139-100 ~ 1SR139-600

PRV : 100 - 600 Volts

Io : 1.0 Ampere

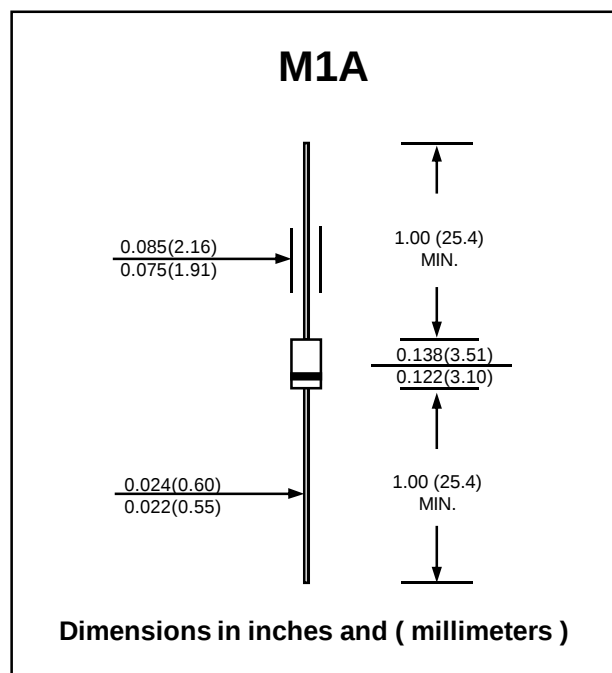
FEATURES :

- * Glass passivated junction chip
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : M1A Molded plastic
- * Epoxy : UL94V-0 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)

SILICON RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	1SR139-100	1SR139-200	1SR139-400	1SR139-600	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	V
Maximum Average Forward 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}	40				A
Maximum Forward Voltage at $I_F = 1.0$ A	V_F	1.1				V
Maximum DC Reverse Current at $V_R = V_{RRM}$	I_{RM}	10				μA
Junction Temperature Range	T_J	- 40 to + 150				°C
Storage Temperature Range	T_{STG}	- 40 to + 150				°C

RATING AND CHARACTERISTIC CURVES (1SR139-100 ~ 1SR139-600)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

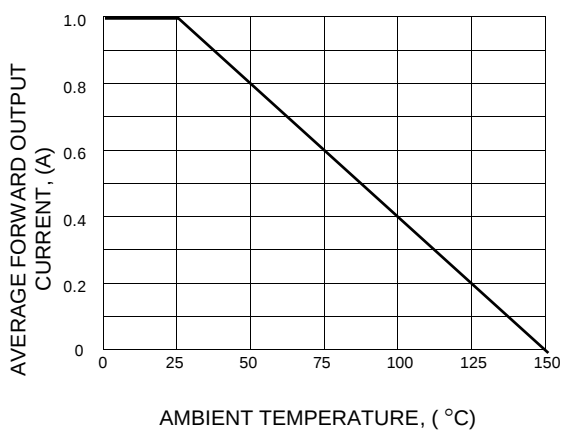


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

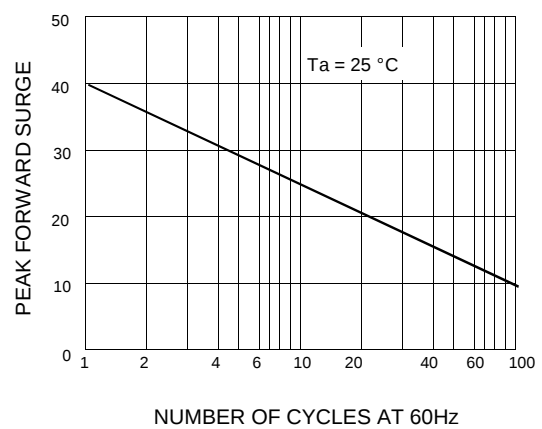


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

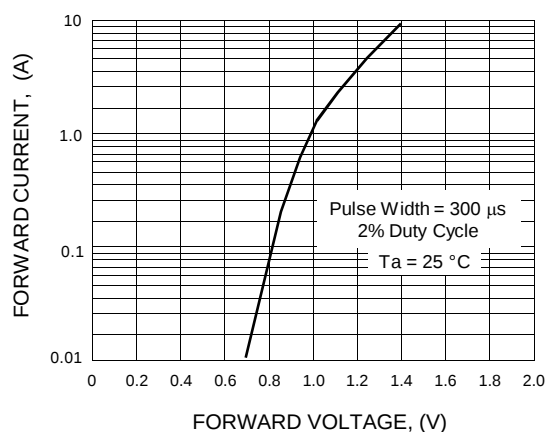


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

