

# 1SR139-100 ~ 1SR139-600

# SILICON RECTIFIER DIODES

**PRV : 100 - 600 Volts**

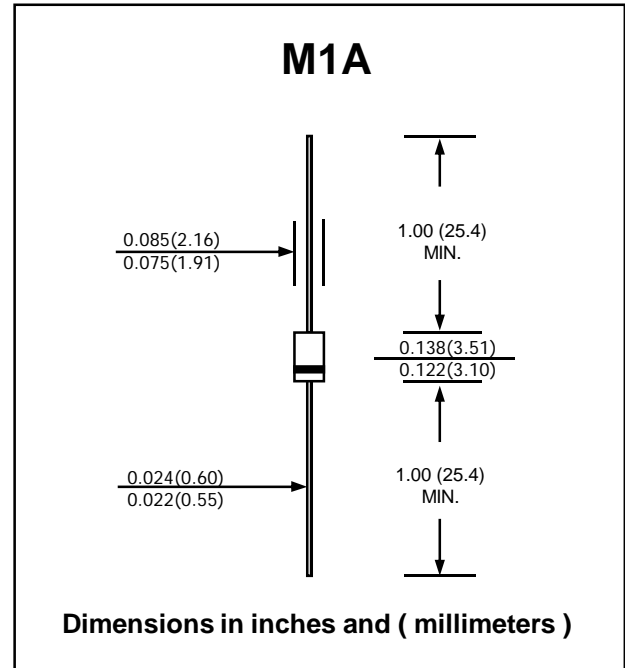
**I<sub>o</sub> : 1.0 Ampere**

### 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)



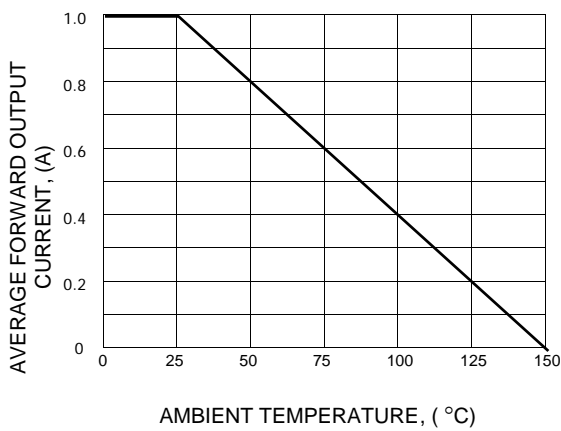
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

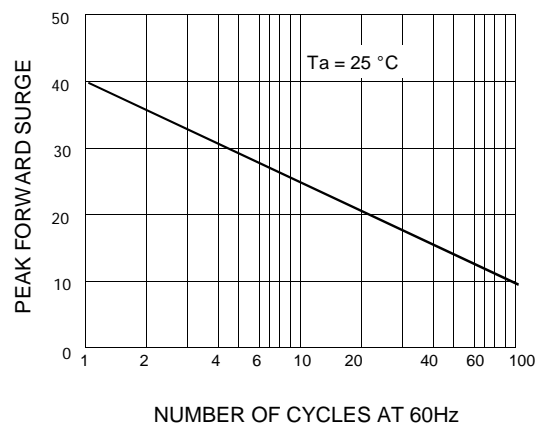
RATING	SYMBOL	1SR139-100	1SR139-200	1SR139-400	1SR139-600	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	400	600	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length	I <sub>F(AV)</sub>	1.0				A
Maximum Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40				A
Maximum Forward Voltage at I <sub>F</sub> = 1.0 A	V <sub>F</sub>	1.1				V
Maximum DC Reverse Current at V <sub>R</sub> = V <sub>RRM</sub>	I <sub>RM</sub>	10				μA
Junction Temperature Range	T <sub>J</sub>	- 40 to + 150				°C
Storage Temperature Range	T <sub>STG</sub>	- 40 to + 150				°C

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

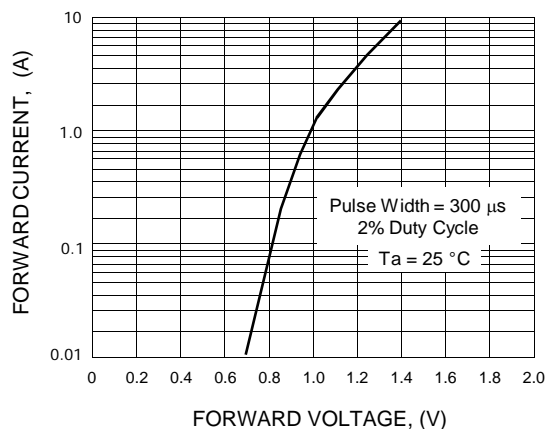
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

