

## 1SR139-100 ~ 1SR139-600

**PRV : 100 - 600 Volts**

**Io : 1.0 Ampere**

### FEATURES :

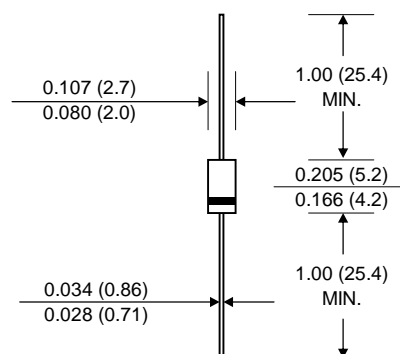
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : DO-41 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 : 0.339 gram

## SILICON RECTIFIER DIODES

### DO - 41



Dimensions in inches and ( millimeters )

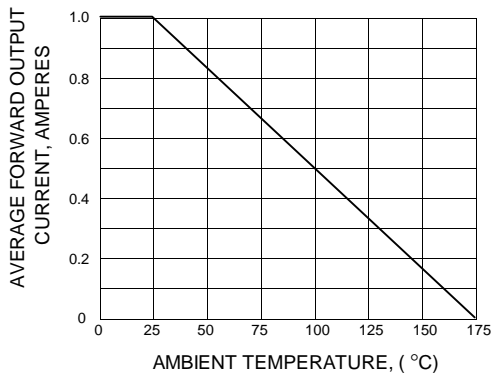
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

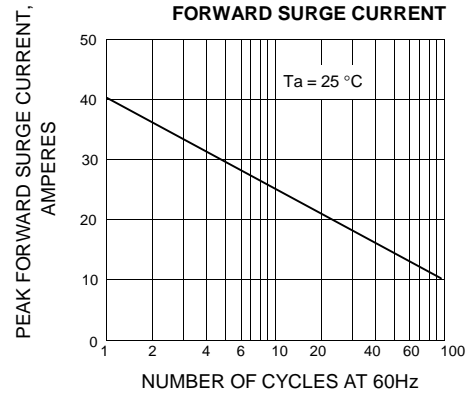
RATING	SYMBOL	1SR139-100	1SR139-200	1SR139-400	1SR139-600	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length	$I_{F(AV)}$	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				$\mu A$
Junction Temperature Range	$T_J$	- 65 to + 175				°C
Storage Temperature Range	$T_{STG}$	- 65 to + 175				°C

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

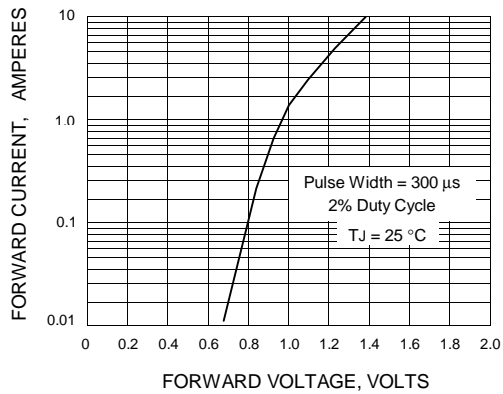
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

