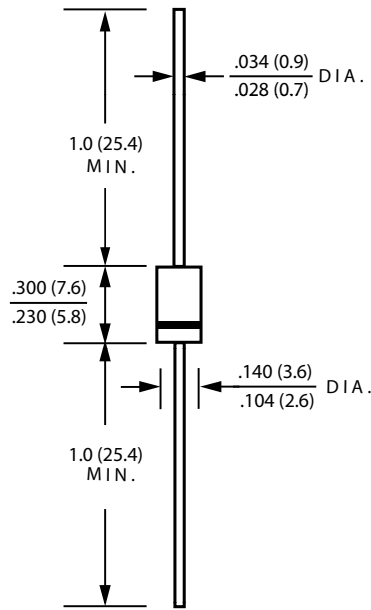


## General Purpose Rectifiers Plastic Passivation Junction



**DO-15**

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
1N539x	General
1N539x-H	Halogen Free
1N539x-Q	Automotive

PRIMARY CHARACTERISTICS	
$I_F$	1.5A
$V_{RRM}$	50~1000V
$I_{FSM}$	50A
$V_F$	1.1V
$T_J \text{ max}$	125°C

### Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

### Mechanical Data

- Cases: DO-15
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish)  
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.366 grams (approximate)

### MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	1N 5391	1N 5392	1N 5393	1N 5395	1N 5397	1N 5398	1N 5399	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_F$	1.5							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50.0							A
Maximum Instantaneous Forward Voltage IF=1.5A @ 25°C	$V_F$	1.1							V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	$I_R$	5 100							uA
Typical Junction Capacitance(NOTE1)	$C_j$	50							pF
Typical Thermal Resistance	$R_{\theta Ja}$	100							°C/W
Operating Temperature Range	$T_J$	-55 to +125							°C
Storage Temperature Range	$T_{STG}$	-55 to +150							°C

NOTES:1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

## General Purpose Rectifiers Plastic Passivation Junction

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

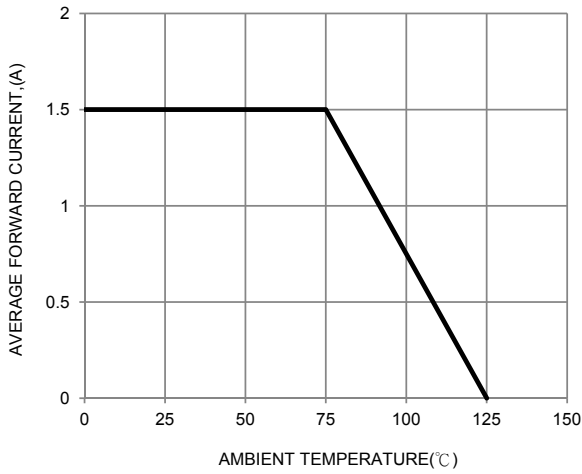


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

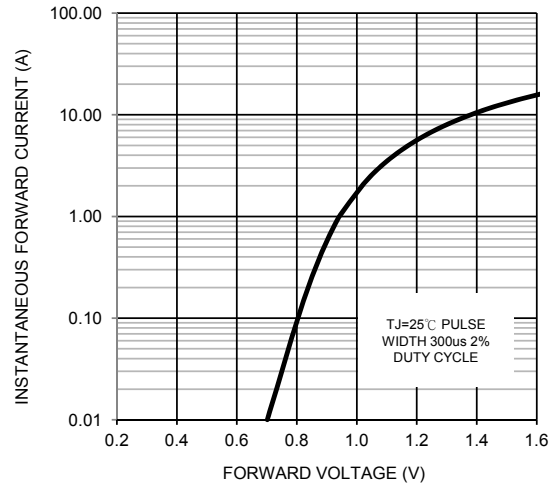


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

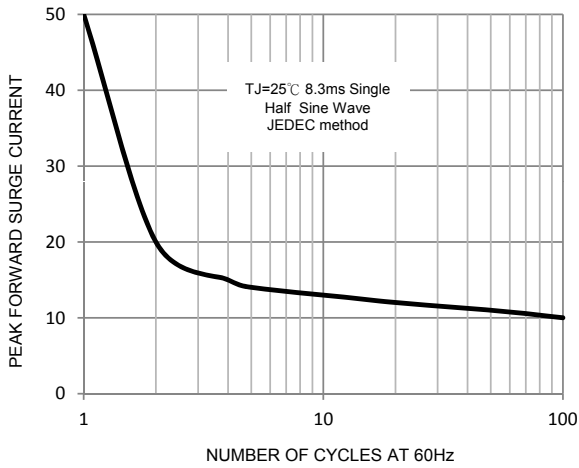


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

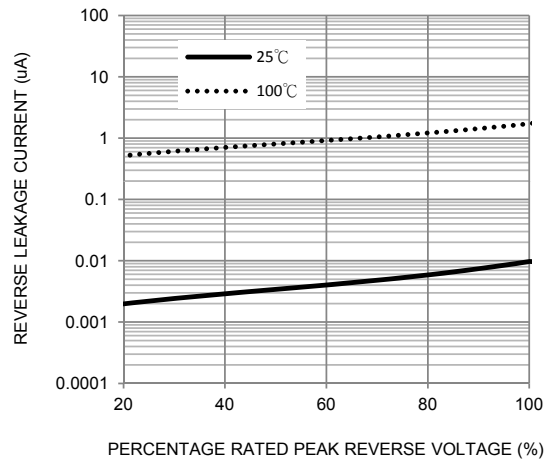


FIG. 5-TYPICAL JUNCTION CAPACITANCE

