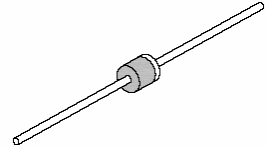


## 2.5A General Purpose Silicon Rectifier

### Features

- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering: 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs (2.3kg) tension
- RoHS Compliance



R-3



### Mechanical Data

<b>Case:</b>	R-3 transfer molded plastic
<b>Epoxy:</b>	UL94V-0 rate flame retardant
<b>Terminals:</b>	Plated axial lead, solderable per MIL-STD-202E, Method 208C
<b>Polarity:</b>	Color band denotes cathode end
<b>Mounting Position:</b>	Any
<b>Weight:</b>	0.019 ounce, 0.54 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	RL251	RL252	RL253	RL254	RL255	RL256	RL257	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	2.5							A	<b>Note 1</b>
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	150							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to +175							°C	

# 2.5A General Purpose Silicon Rectifier

## RL251 - RL257

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	RL251	RL252	RL253	RL254	RL255	RL256	RL257	Unit	Conditions
$V_F$	Maximum Forward Voltage	1.0							V	$I_F$ at 2.5 A
$I_R$	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							$\mu A$	$T_A=25^{\circ}C$
		50								$T_A=100^{\circ}C$
$C_J$	Typical Junction Capacitance	35							pf	$V_R=4V$ , $f=1MHz$
$R_{\theta-JA}$	Maximum Thermal Resistance	35							$^{\circ}C/W$	<b>Note 2</b>

- Note:** 1. 60Hz, resistive or inductive load. Derate current by 20% for capacitive load  
 2. Thermal resistance from junction to ambient at .375" (9.5mm) lead length.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

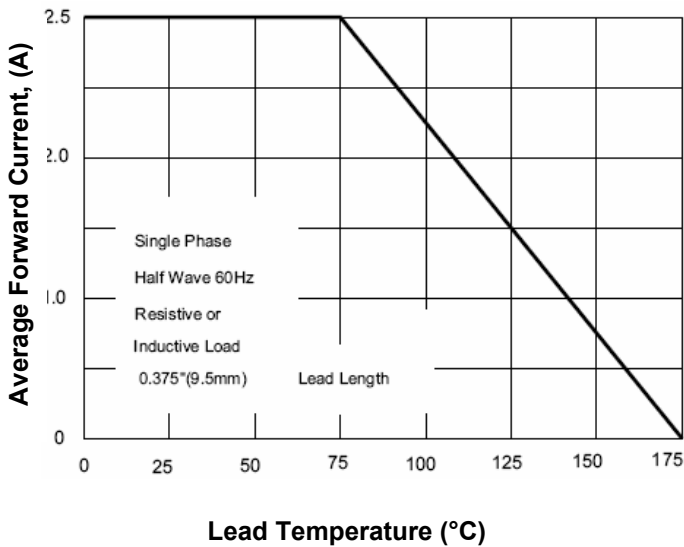
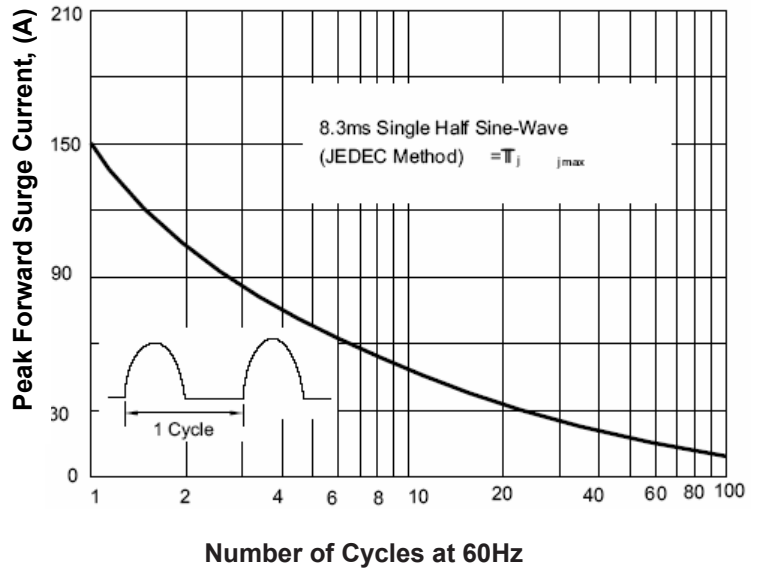


Fig.2- Maximum Non-Repetitive Forward Surge Current



# 2.5A General Purpose Silicon Rectifier

RL251 - RL257

Fig.3-Typical Forward Characteristics

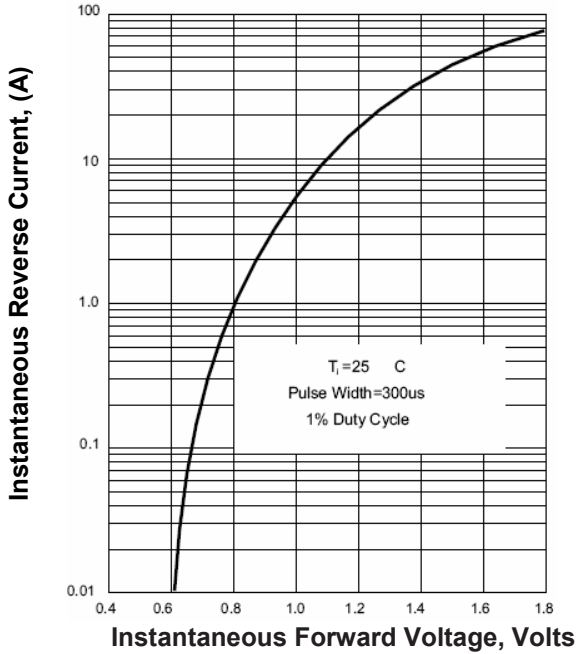


Fig.4- Typical Reverse Characteristics

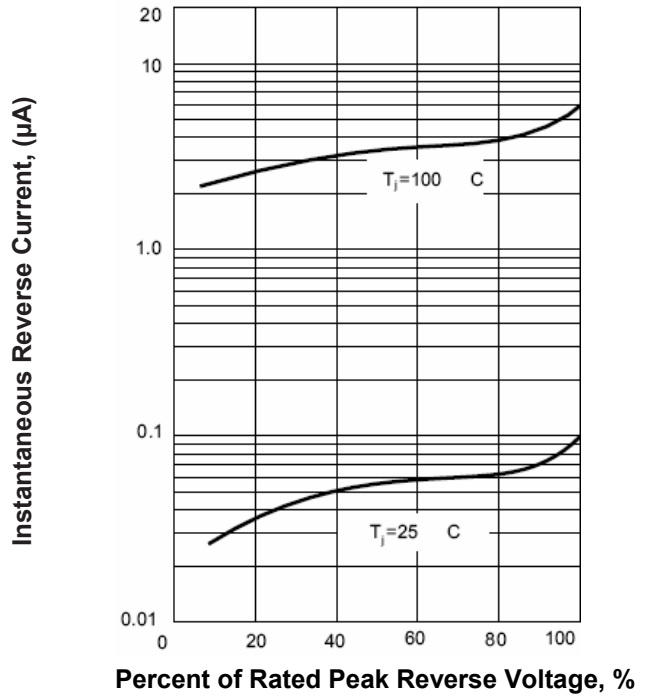
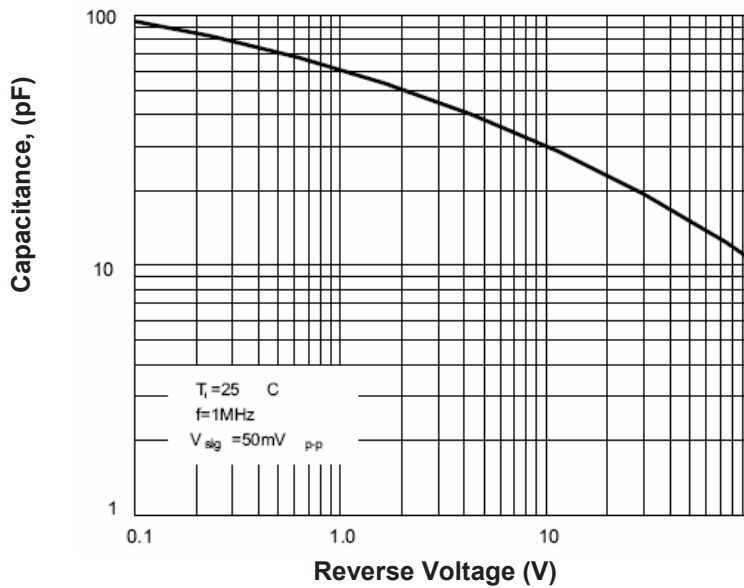


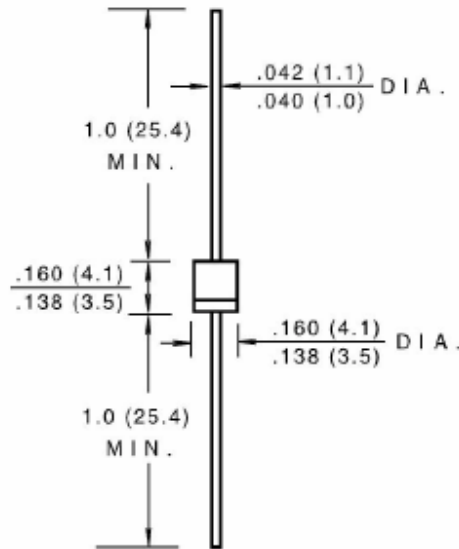
Fig.5-Typical Junction Capacitance



# 2.5A General Purpose Silicon Rectifier

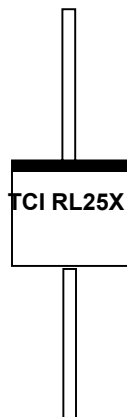
RL251 - RL257

## Dimensions in inches (mm)



R-3

## Marking Information:

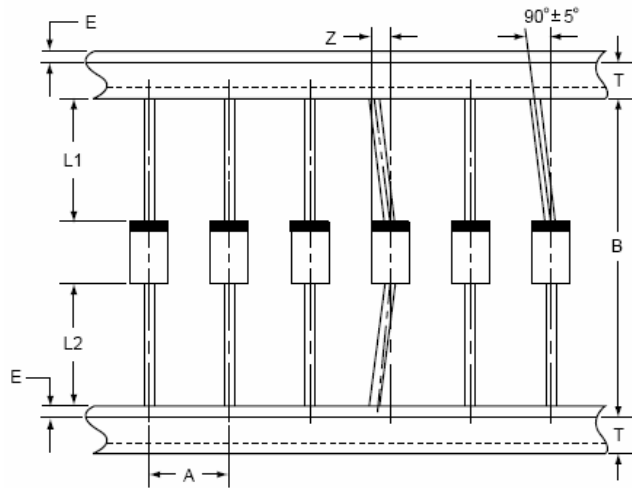


## 2.5A General Purpose Silicon Rectifier

RL251 - RL257

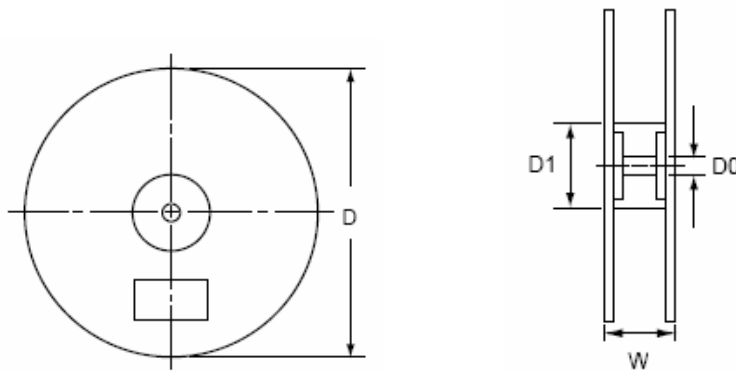
### Packing Information:

#### Carrier Tape Dimensions (in mm)



Components Outline	A	B	L1- L2	T	E	Z
R-3	5±0.5	52.4+1.5/-0.4	Max.1.0	6±0.4	Max.0.8	Max.1.2

#### Reel Dimensions (in mm)



D	D0	D1	W
330.0±2.0	30±5.0	85.7±5.0	79.0±1.0

## 2.5A General Purpose Silicon Rectifier

RL251 - RL257

### Packing Quantity Information:

Quantity	PCS per Inner Box	PCS per Carton
-TR30 Tape & Reel	3000/Reel	12000
-BL Bulk	500	25000

### Carton Size Information:

-2LF Lead Forming	-TR30 Tape & Reel
475X225X260 ( in mm)	360X350X345 ( in mm)

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