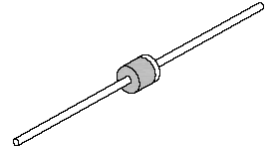


2.5A General Purpose Silicon Rectifier

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

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

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Description	RL251	RL252	RL253	RL254	RL255	RL256	RL257	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	2.5							A	Note 1
I_{FSM}	Peak Forward Surge Current	150							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
T_J, T_{STG}	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	$I_F=2.5$ A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	$T_A=25^{\circ}C$
		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							$^{\circ}C/W$	Note 2

- 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

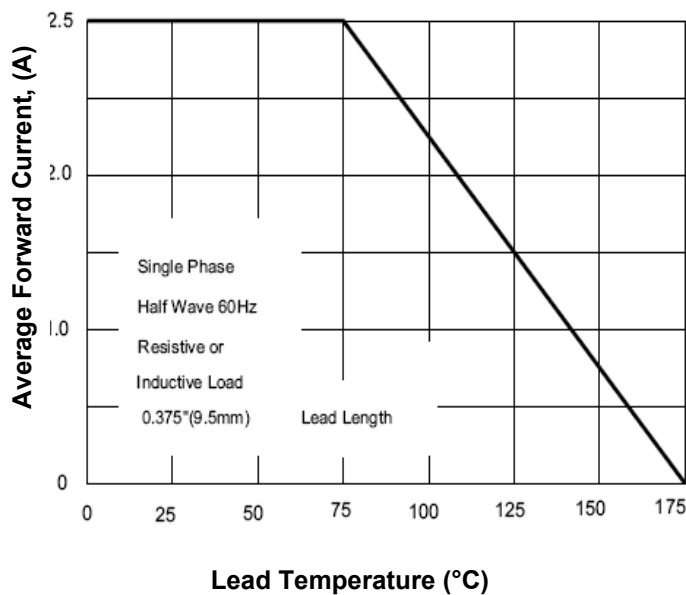
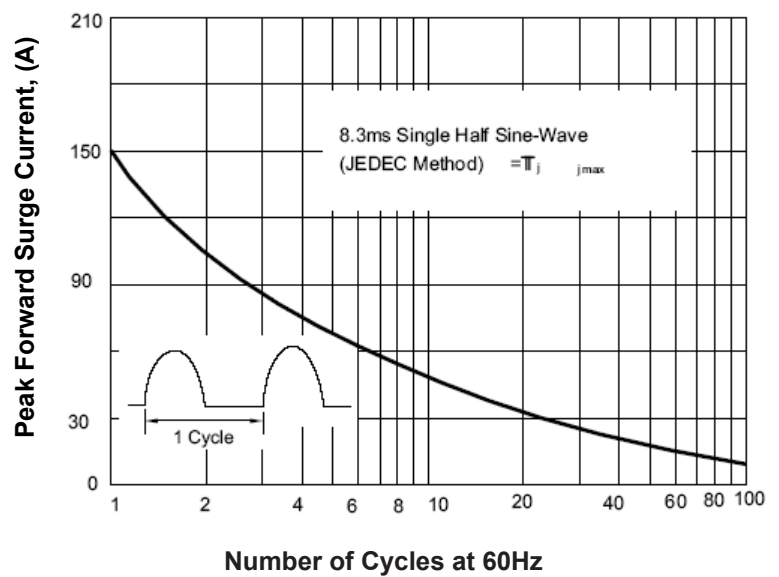


Fig.2- Maximum Non-Repetitive Forward Surge Current



2.5A General Purpose Silicon Rectifier

RL251 - RL257

Fig.3-Typical Forward Characteristics

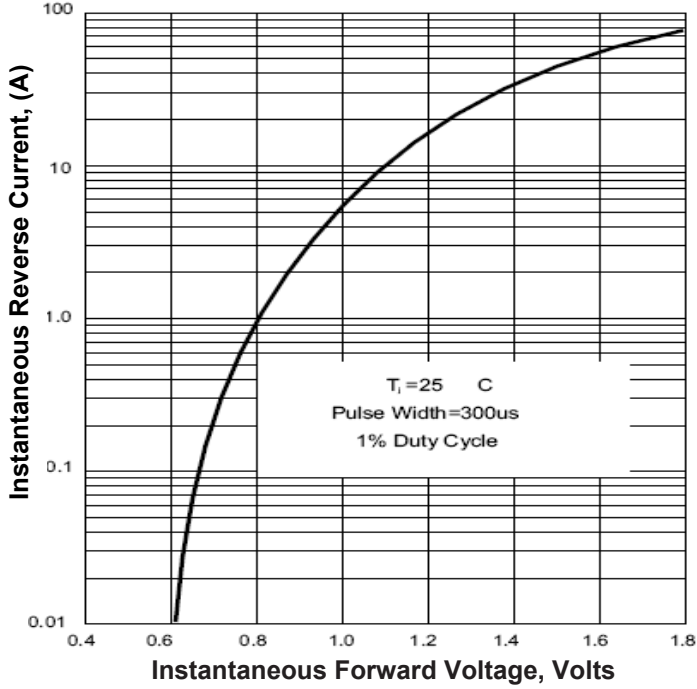


Fig.4- Typical Reverse Characteristics

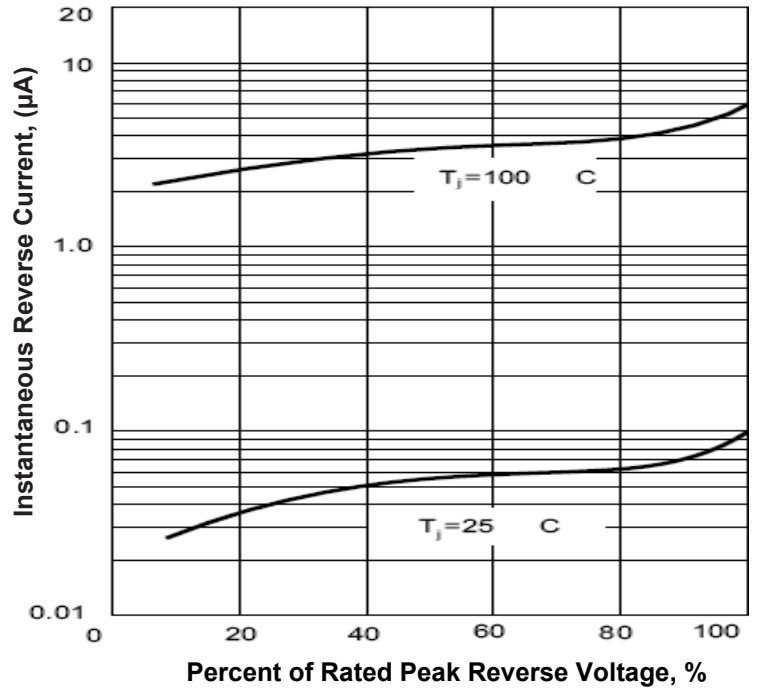
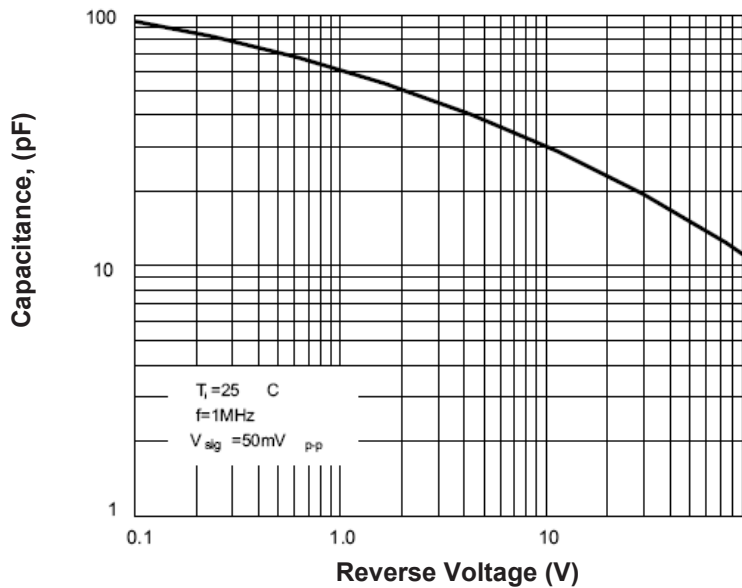


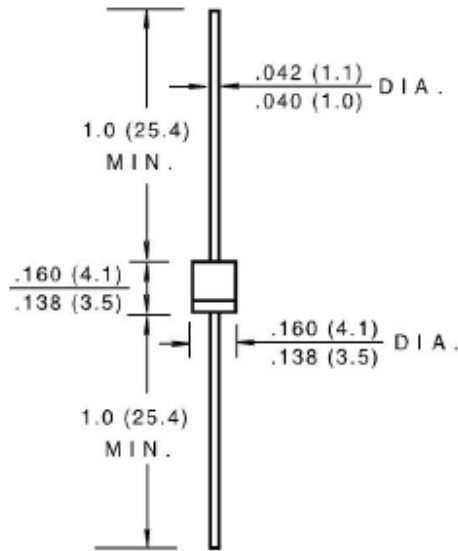
Fig.5-Typical Junction Capacitance



2.5A General Purpose Silicon Rectifier

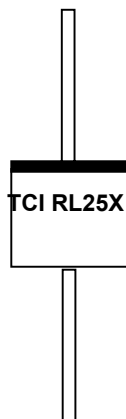
RL251 - RL257

Dimensions in inches (mm)



R-3

Marking Information:

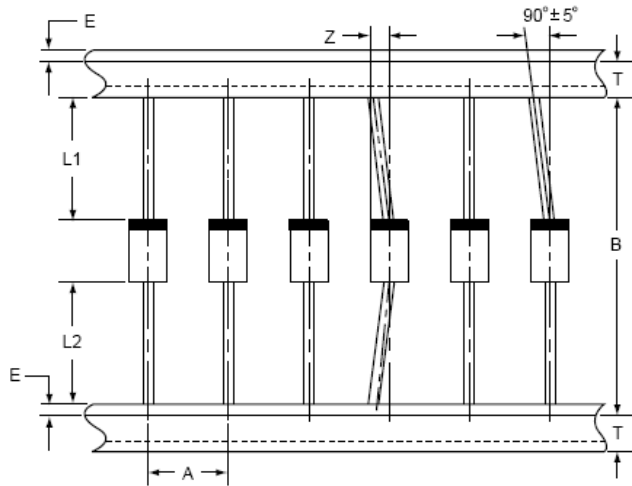


2.5A General Purpose Silicon Rectifier

RL251 - RL257

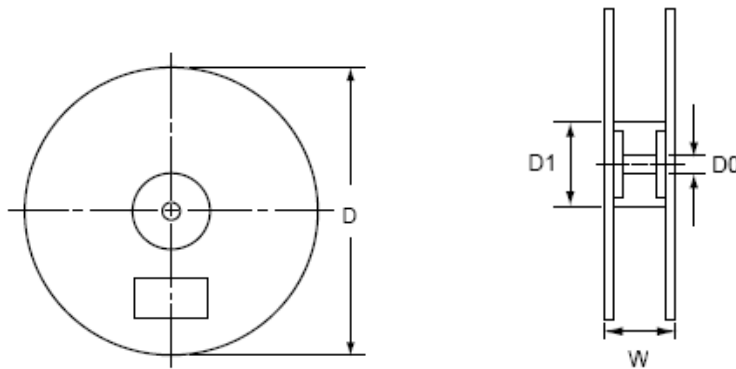
Packing Information:

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

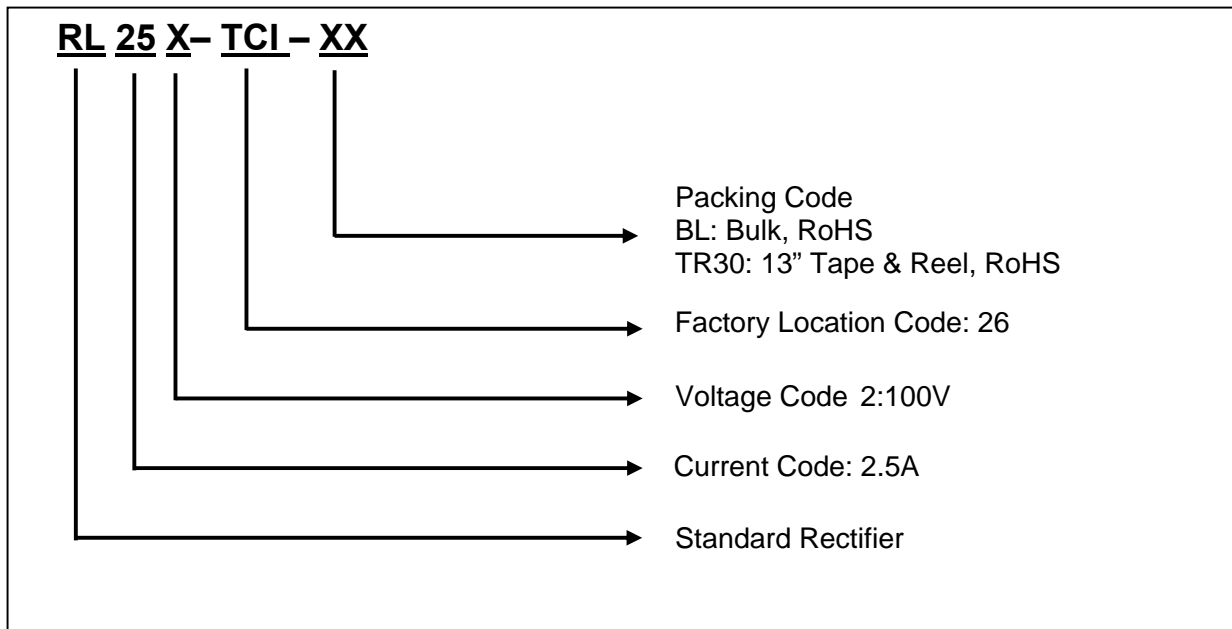
Packing Quantity Information:

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)

How to Order:



2.5A General Purpose Silicon Rectifier

RL251 - RL257

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