

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



DO-15



Mechanical Data

Case:	DO-15 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:	0.015 ounce, 0.4 gram

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

Symbol	Description	RL251M	RL252M	RL253M	RL254M	RL255M	RL256M	RL257M	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	100							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	

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RL251M - RL257M

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

Symbol	Description	RL251M	RL252M	RL253M	RL254M	RL255M	RL256M	RL257M	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							μA	T _A =25° C
		50								T _A =100° C
C _J	Typical Junction Capacitance	35							pf	V _R =4V, f=1MHz
R _{θ-JA}	Maximum Thermal Resistance	35							° 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

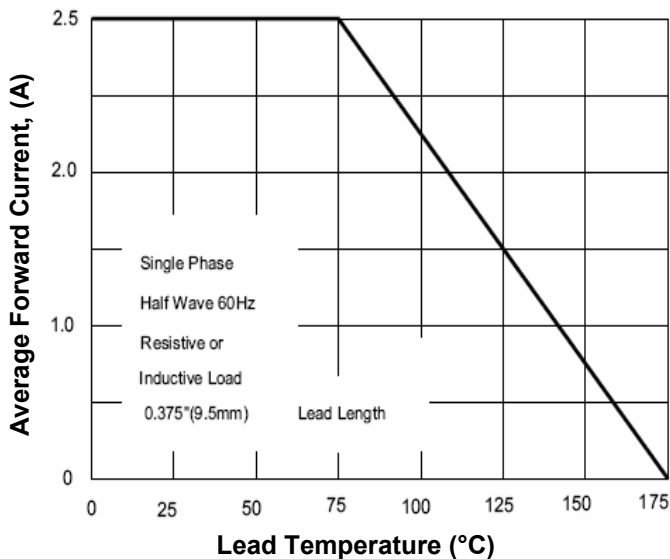
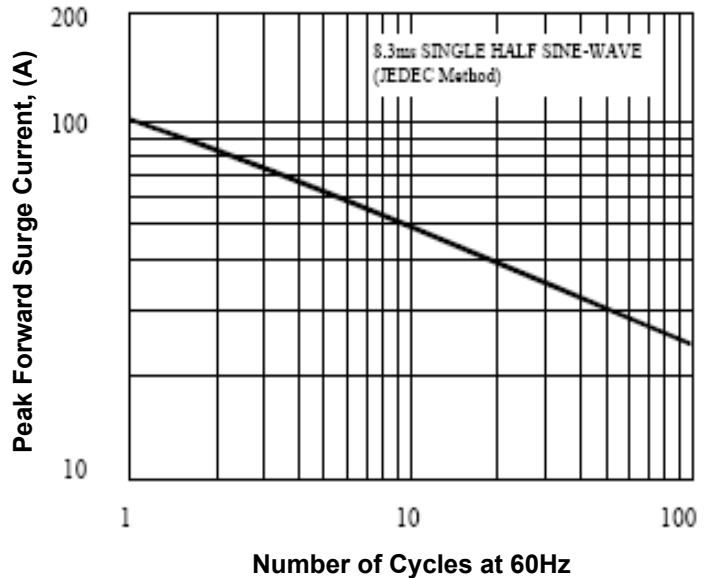


Fig.2- Maximum Non-Repetitive Forward Surge Current



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Fig.3-Typical Forward Characteristics

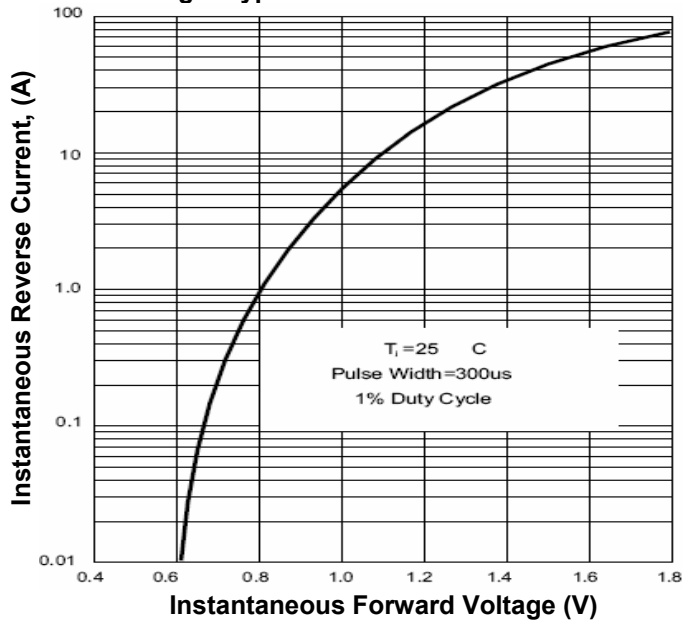


Fig.4- Typical Reverse Characteristics

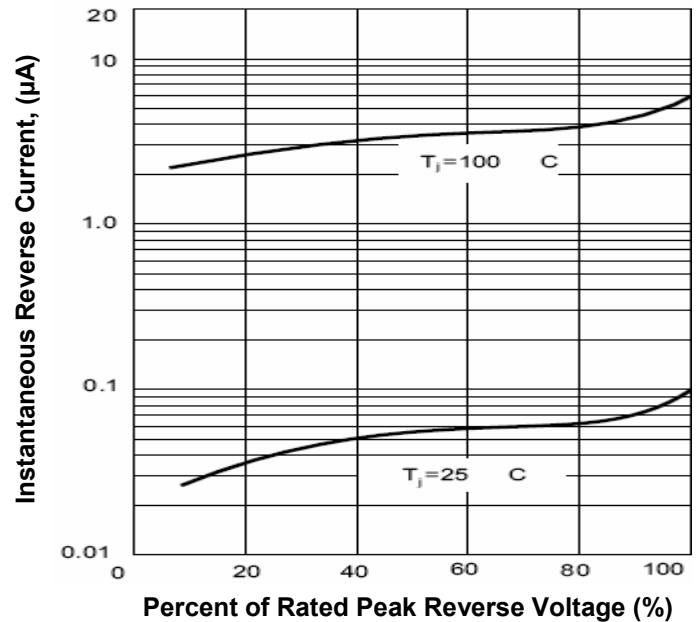
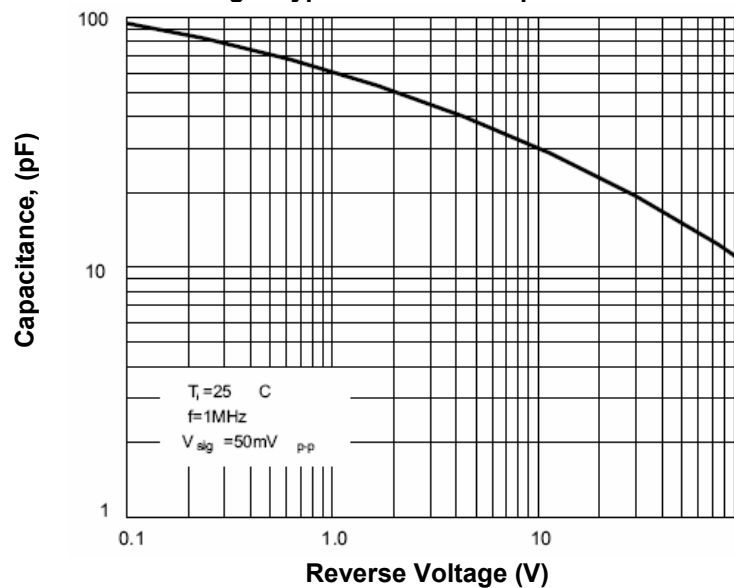


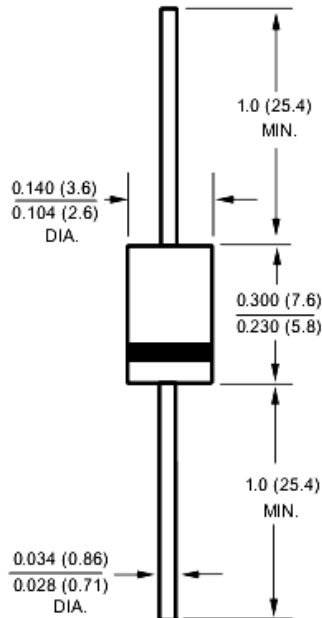
Fig.5-Typical Junction Capacitance



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Dimensions in inches (mm)



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DO-15

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