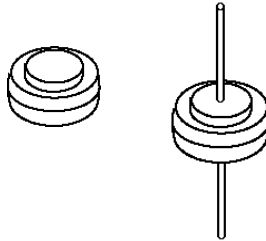


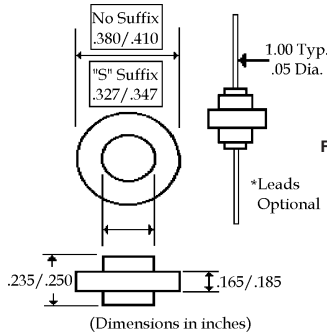
# 25 Amp PLASTIC SILICON AUTOMOTIVE RECTIFIERS

**FR2501 . . . 2510 Series**

## Description



## Mechanical Dimensions



For 2 Lead Small Pkg  
FR2501SL yellow color side = Cathode

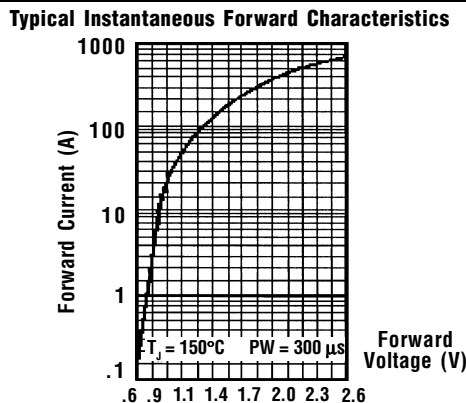
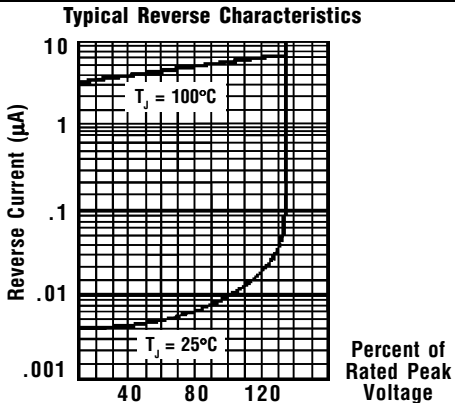
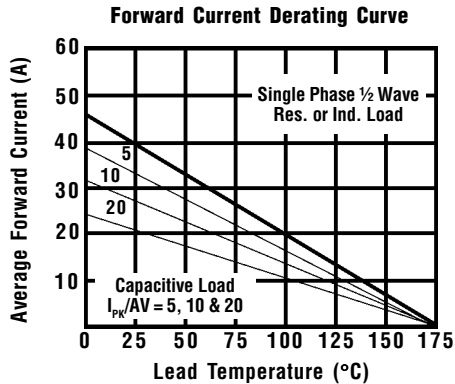
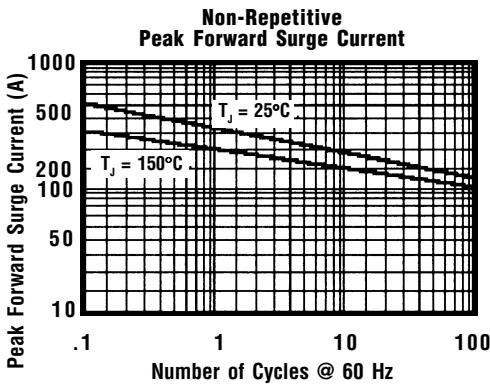
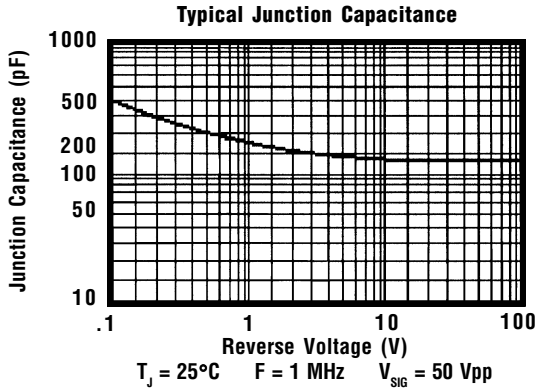
Options - Add Suffix to Part #:  
FR2500L = 2 Leads

For 1 Lead Small Pkg:  
FR2500SC = Lead On Cathode  
FR2500SA = Lead On Anode

## Features

- **LOW COST**
- **HIGH SURGE CAPABILITY**
- **DIFFUSED JUNCTION**
- **LOW LEAKAGE CURRENT**
- **HIGH TEMPERATURE CAPABILITY**
- **MEETS UL SPECIFICATION 94V-0**

<b>FR2501 . . . 2510 Series</b>								<b>Units</b>	
<b>Maximum Ratings</b>	<b>FR2501</b>	<b>FR2502</b>	<b>FR2503</b>	<b>FR2504</b>	<b>FR2506</b>	<b>FR2508</b>	<b>FR2510</b>		
Peak Repetitive Reverse Voltage... $V_{RRM}$	100	200	300	400	600	800	1000	Volts	
RMS Reverse Voltage... $V_{R(rms)}$	70	140	210	280	420	560	700	Volts	
DC Blocking Voltage... $V_{DC}$	100	200	300	400	600	800	1000	Volts	
Average Forward Rectified Current... $I_{F(av)}$ $T_A = 55^\circ\text{C}$ (Note 3)				25				Amps	
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$ @ Rated Current & Temp				400				Amps	
Operating & Storage Temperature Range... $T_J, T_{STRG}$				-65 to 175				$^\circ\text{C}$	
<b>Electrical Characteristics</b>									
Maximum Forward Voltage @ 80A... $V_F$	< ..... 1.1 ..... >		< ..... 1.2 ..... >						Volts
Maximum DC Reverse Current... $I_R$ @ Rated DC Blocking Voltage,	25 $^\circ\text{C}$			2.0					$\mu\text{Amps}$
	150 $^\circ\text{C}$			250					$\mu\text{Amps}$
Typical Junction Capacitance... $C_J$ (Note 1)	< ..... 200 ..... >		< ..... 300 ..... >						pF
Typical Thermal Resistance... $R_{\theta JA}$ (Note 2)				1.0					$^\circ\text{C}/\text{W}$
Typical Reverse Recovery Time... $t_{RR}$				3.0					$\mu\text{s}$



Ratings at  
25 Deg. C ambient  
temperature  
unless otherwise  
specified.

Single Phase Half  
Wave, 60 Hz  
Resistive or  
Inductive Load.

For Capacitive  
Load, Derate  
Current by 20%.

- NOTES:**
1. Measured @ 1 MHz and applied reverse voltage of 4.0V.
  2. Thermal Resistance Junction to Ambient, Jedec Method.
  3. When Mounted to heat sink, from body.