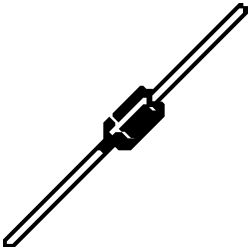
Semiconductor *Data Sheet*

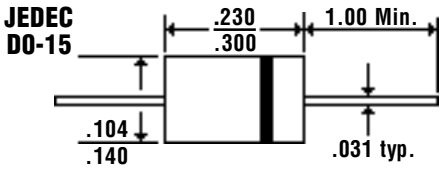
2.0 Amp SUPER FAST PLASTIC RECTIFIERS

SF21 . . . 24 Series

Description



Mechanical Dimensions



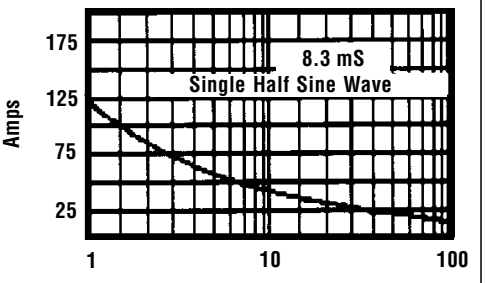
Features

- **HIGH SURGE CAPABILITY**
- **LOW FORWARD VOLTAGE DROP**
- **HIGH CURRENT CAPABILITY**
- **EXCEEDS ENVIRONMENTAL STANDARDS OF MIL-STD-19500**

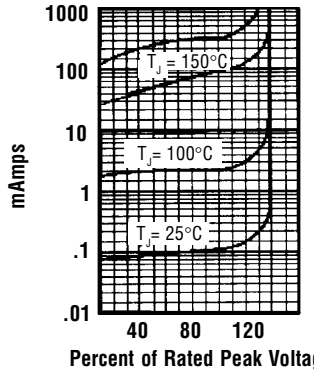
Electrical Characteristics @ 25°C.	***SF21 . . . 24 Series***				**Units**
Maximum Ratings	**SF21**	**SF22**	**SF23**	**SF24**	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	150	200	Volts
RMS Reverse Voltage...$V_{R(rms)}$	35	70	105	140	Volts
DC Blocking Voltage...V_{DC}	50	100	150	200	Volts
Average Forward Rectified Current...$I_{F(av)}$ T_A = 55°C	..... 2.0				Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} @ Rated Current & Temp	..... 50				Amps
Forward Voltage @ 2.0A...V_F	..... 0.95				Volts
DC Reverse Current...I_R T_A = 25°C	..... 2.0				µAmps
@ Rated DC Blocking Voltage T_A = 150°C	..... 50				µAmps
Typical Junction Capacitance...C_J *(Note 1)*	..... 70				pF
Typical Reverse Recovery Time...t_{RR} *(Note 2)*	..... 35				nS
Operating & Storage Temperature Range...T_J, T_{STRG}	..... -65 to 150				°C

Forward Current Derating Curve

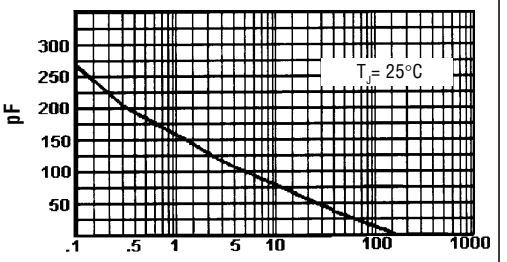
Non-Repetitive Peak Forward Surge Current



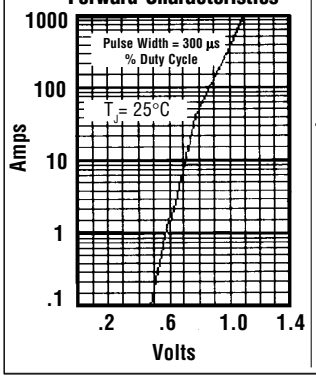
Typical Reverse Characteristics

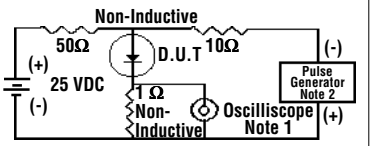


Typical Junction Capacitance



Typical Instantaneous Forward Characteristics

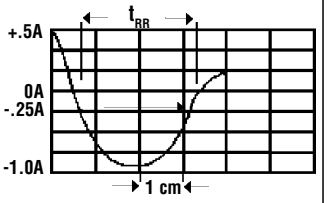




Notes:

1. Rise Time = 7 nS Max. Impedance = 1 megohm, 22 pF
2. Rise Time = 10 nS Max. Source Impedance = 50 Ohms

Reverse Recovery Characteristics



Time Base Set @ 50/100nS/cm

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. Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.