



1.0 Amp FAST RECOVERY RECTIFIERS

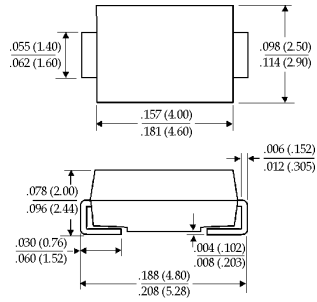
Description

Mechanical Dimensions

FRS10...110 Series



**DO-214AC
(SMA)**



Dimensions in inches and (millimeters)

Features

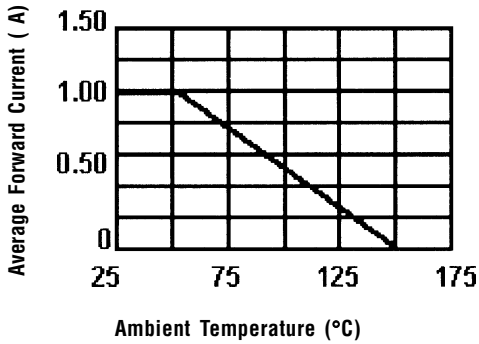
- FAST SWITCHING FOR HIGH EFFICIENCY
- HIGH SURGE CAPABILITY
- 1.0 AMP OPERATION @ $T_A = 55^\circ\text{C}$, WITH NO THERMAL RUNAWAY
- MEETS UL SPECIFICATION 94V-0

FRS10 . . . 110 Series								Units
Maximum Ratings	FRS10	FRS11	FRS13	FRS14	FRS16	FRS18	FRS110	
Peak Repetitive Reverse Voltage... V_{RRM}	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage... $V_{R(rms)}$	35	70	140	280	420	560	700	Volts
DC Blocking Voltage... V_{DC}	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current... $I_{F(av)}$ $T_A = 55^\circ\text{C}$ (Note 3)				1.0				Amps
Non-Repetitive Peak Forward Surge Current... I_{FSM} @ Rated Current & Temp				50				Amps
Operating & Storage Temperature Range... T_J, T_{STRG}				-65 to 150				$^\circ\text{C}$
Electrical Characteristics								
Maximum Forward Voltage @ 1.0A... V_F				1.3				Volts
Maximum DC Reverse Current... I_R @ Rated DC Blocking Voltage				$T_A = 25^\circ\text{C}$ 5.0				μAmps
				$T_A = 100^\circ\text{C}$ 100				μAmps
Typical Junction Capacitance... C_J (Note 1)				15				pF
Maximum Reverse Recovery Time... t_{RR}	150	150	150	150	250	500	500	ns

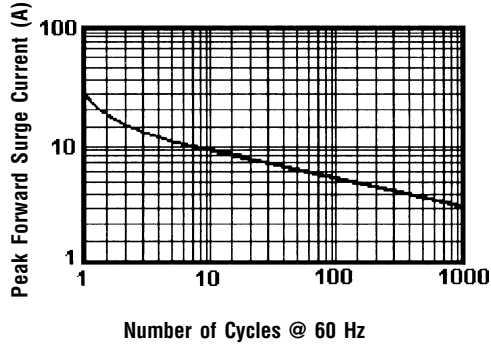
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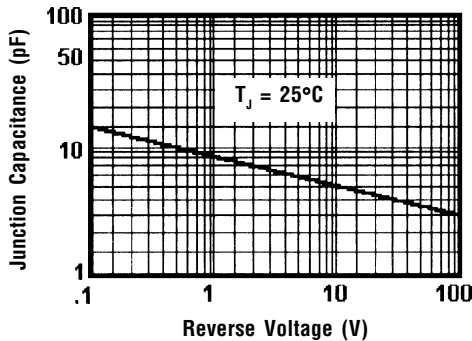
Forward Current Derating Curve



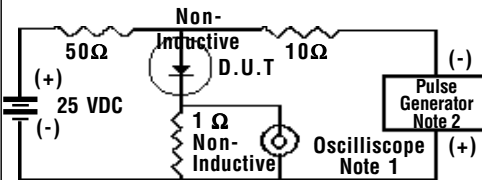
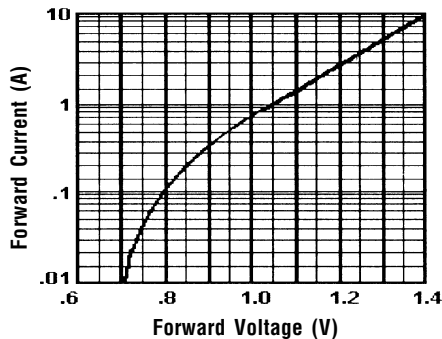
Non-Repetitive Peak Forward Surge Current



Typical Junction Capacitance

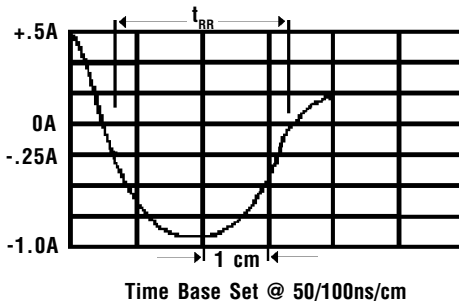


Typical Instantaneous Forward Characteristics



- 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



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. PCB mounted on 5.0mm² (.013mm thick) copper pads.