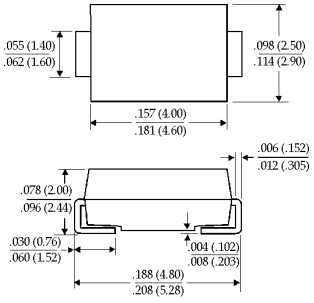
1.0 Amp FAST RECOVERY RECTIFIERS

Description



Mechanical Dimensions

DO-214AC (SMA)



Dimensions in inches and (millimeters)

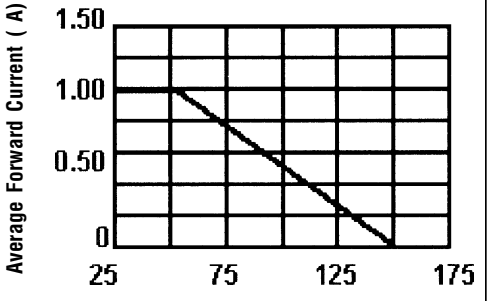
Features

- **FAST SWITCHING FOR HIGH EFFICIENCY**
- **HIGH SURGE CAPABILITY**
- **1.0 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY**
- **MEETS UL SPECIFICATION 94V-0**

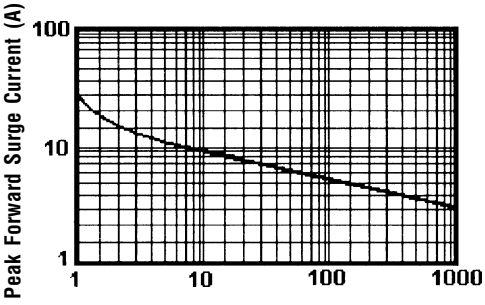
	FRS10 . . . 110 Series							Units
Maximum Ratings	**FRS10**	**FRS11**	**FRS13**	**FRS14**	**FRS16**	**FRS18**	**FRS110**	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	35	70	140	280	420	560	700	Volts
DC Blocking Voltage...V_{DC}	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$ T_A = 55°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							°C
Electrical Characteristics								
Maximum Forward Voltage @ 1.0A...V_F	1.3							Volts
Maximum DC Reverse Current...I_R T_A = 25°C	5.0							µAmps
@ Rated DC Blocking Voltage T_A = 100°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

1.0 Amp FAST RECOVERY RECTIFIERS

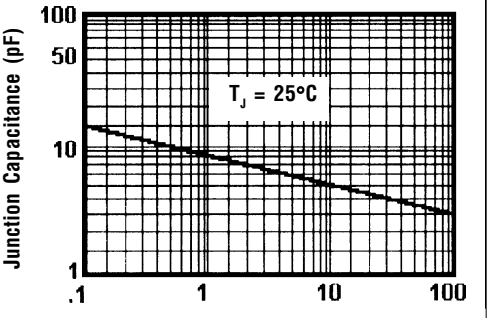
Forward Current Derating Curve



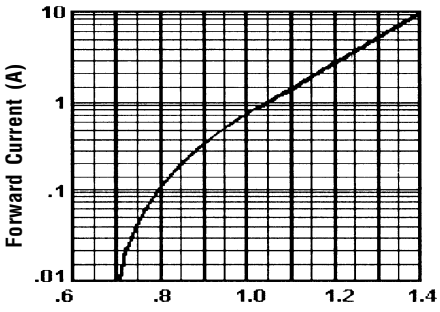
Non-Repetitive Peak Forward Surge Current

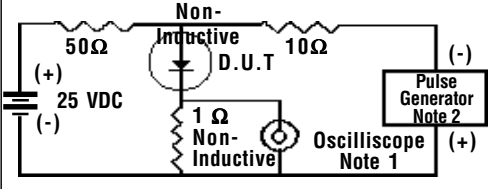


Typical Junction Capacitance



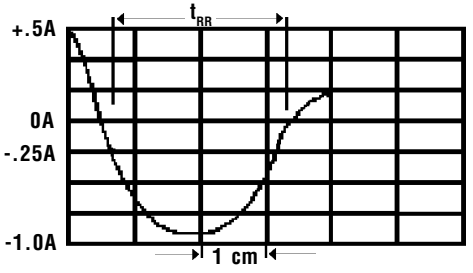
Typical Instantaneous Forward Characteristics





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 5.0mm^2 (.013mm thick) copper pads.