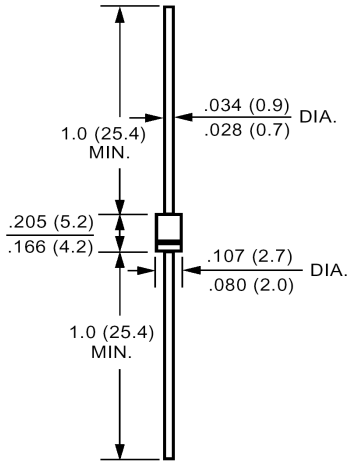
SF11 THRU SF18

Superfast Recovery Rectitiers

FEATURES

· High surge capability
· Low forward voltage, high current capability
· Hermetically sealed
· Superfast recovery times
· Exceeds environmental standards of MIL-S-19500/228
· Low leakage.

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41
Epoxy: UL 94V-O rate flame retardant
Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
Polarity: Color band denotes cathode end
Mounting position: Any
Weight: 0.012ounce, 0.33gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*SF11*	*SF12*	*SF13*	*SF14*	*SF15*	*SF16*	*SF18*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	**Volts**
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=55℃	$I_{(AV)}$	1.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							**Amp**
Maximum Forward Voltage at 1.0A DC and 25℃	V_F	1.0				1.25		1.65	**Volts**
Maximum Reverse Current at T_A=25℃ at Rated DC Blocking Voltage T_A=100℃	I_R	5.0 500							**uAmp**
Typical Junction Capacitance (Note 1)	C_J	50				25			**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50							**℃/W**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	35							**nS**
Operating Junction Temperature Range	T_J	-55 to +125							**℃**
Storage Temperature Range	Tstg	-55 to +125							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.
2- Thermal Resistance from Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted.
3- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

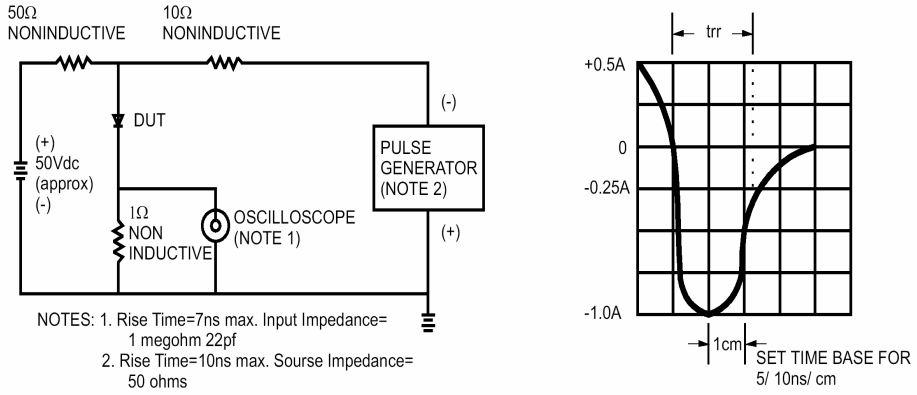


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

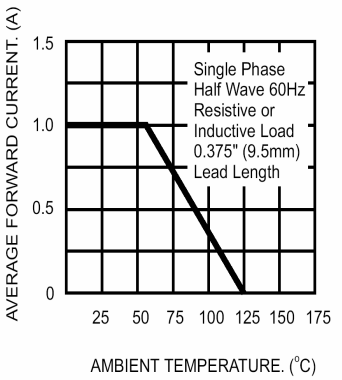


FIG.3- TYPICAL REVERSE CHARACTERISTICS

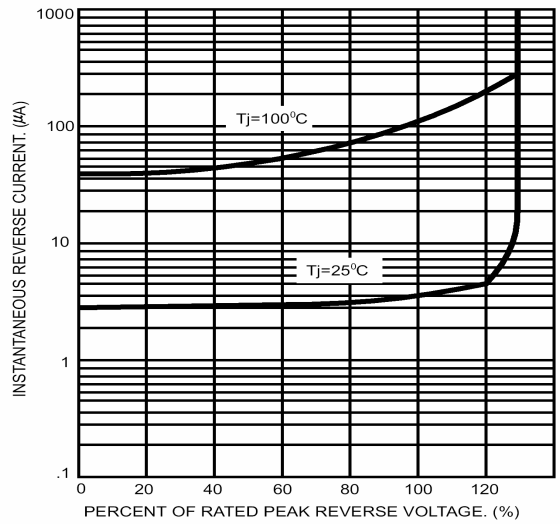


FIG.4- TYPICAL FORWARD CHARACTERISTICS

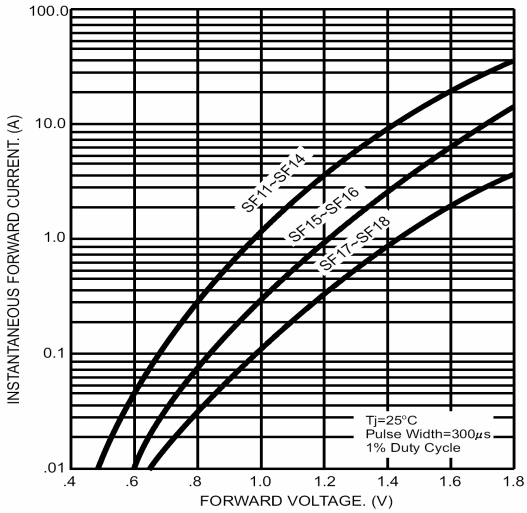


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

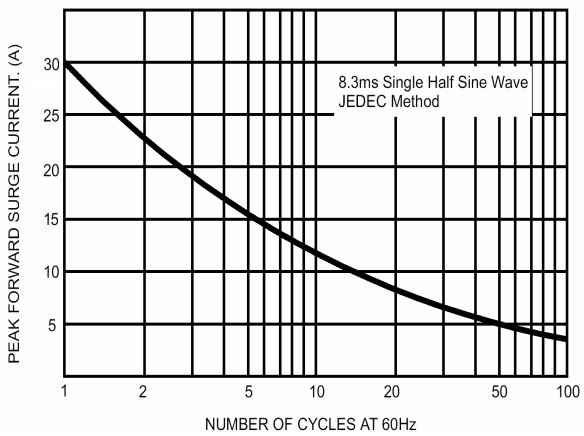


FIG.6- TYPICAL JUNCTION CAPACITANCE