

DO-41

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Open Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

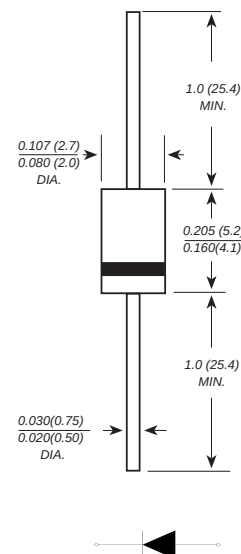
Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0088 ounce, 0.25 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Type Number	SYMBOL	SF 11	SF12	SF13	SF14	SF 15	SF16	SF18	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Average Rectified Output Current (Note 1) @T _L =90 °C	I _{F(AV)}	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	3.735							A ² s
Forward Voltage @IF=1.0A	V _{FM}	0.95				1.25		1.7	V
Peak Reverse Current @T _A =25 °C	I _R	5.0							uA
At Rated DC Blocking Voltage @T _A =125 °C		100							
Maximum Reverse Recovery Time (Note1)	T _{RR}	35							nS
Typical Junction Capacitance (Note 2)	C _J	12							pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	65							°C/W
Operating Temperature Range	T _J	-55 to + 125							°C
Storage Temperature Range	T _{STG}	-55 to + 150							°C

Note: 1.Reverse recovery time test condition: $I_F = 0.5A$ $I_R = 1.0A$ $I_{rr} = 0.25A$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

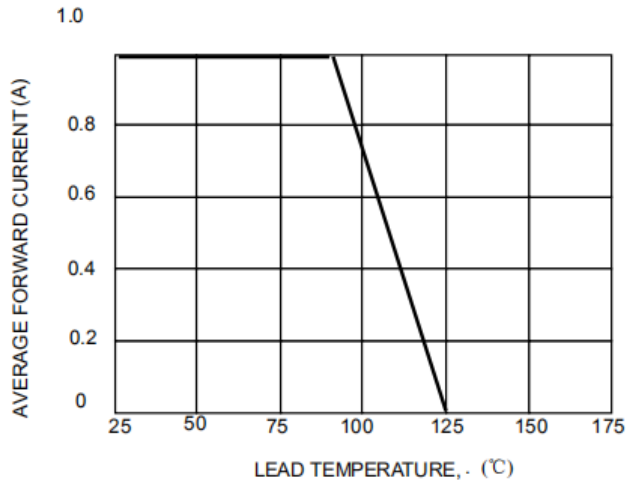


FIG.2-TYPICAL FORWARD CHARACTERISTICS

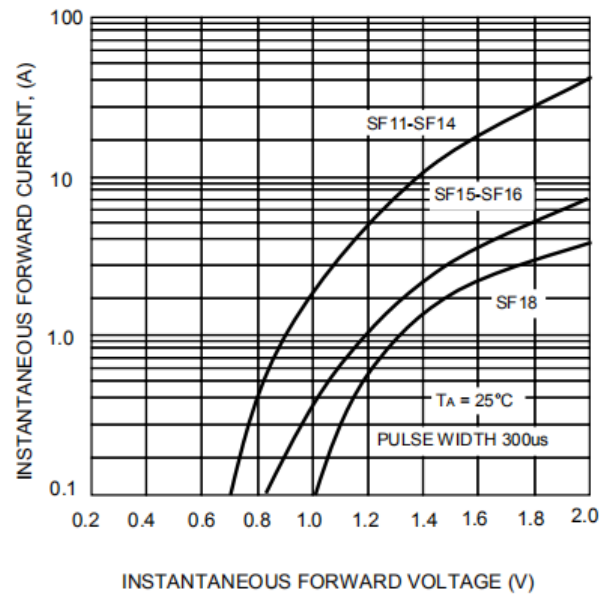


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

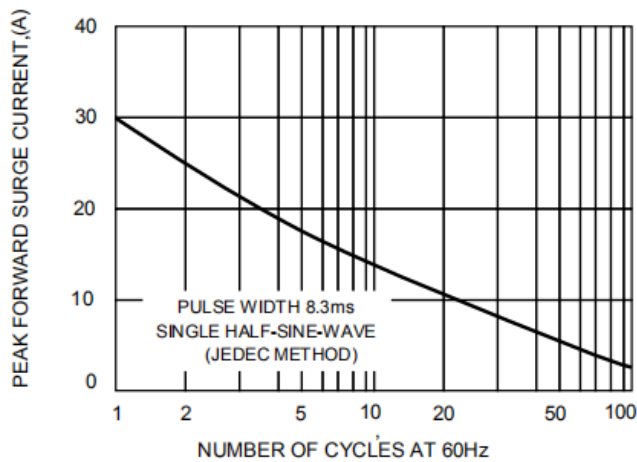
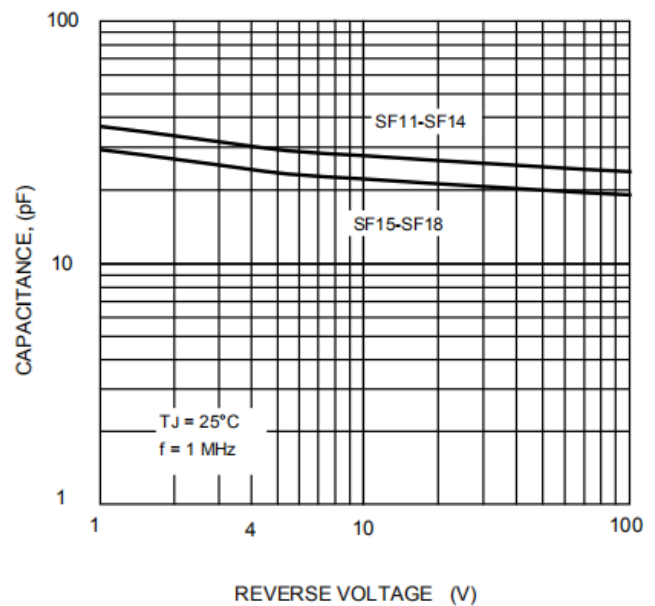
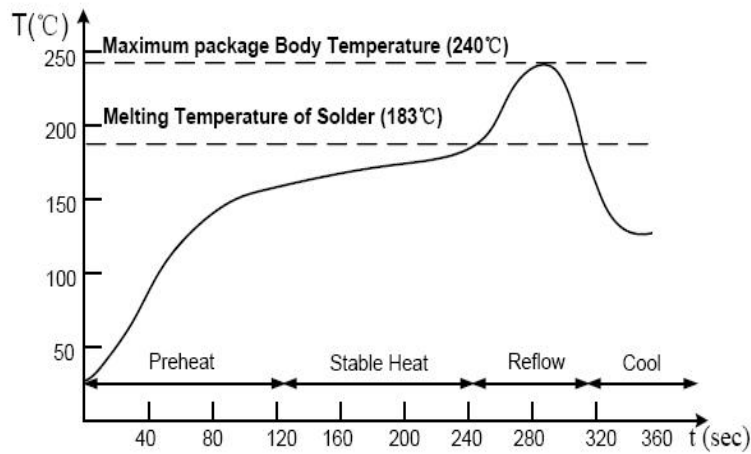


FIG.4 – TYPICAL JUNCTION CAPACITANCE



Suggested Soldering Temperature Profile

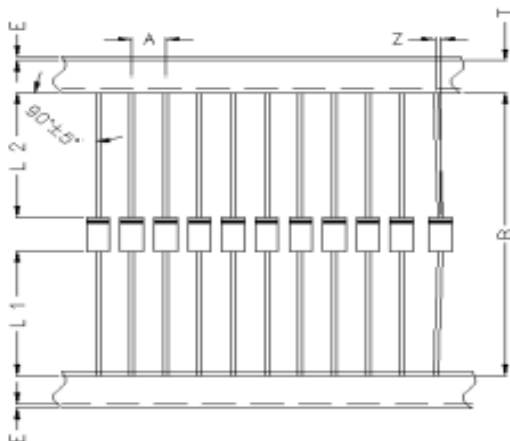


Note

- ◆ Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- ◆ The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- ◆ Devices can be cleaned using standard industry methods and solvents.
- ◆ If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Taping Specifications



Item	Symbol	Specifications(mm)
Component Pitch	A	5.0±0.5
Inner Tape Pitch	B	52.4±1.5
Component alignment	Z	1.2 Max
Tape width	T	6.0±0.5
Exposed adhesive	E	0.8 Max
Body eccentricity	L1-L2	1.0 Max

Ammunition Package Specifications

Package	Inner Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
DO - 41	255*150*75	5	420*276*312	50