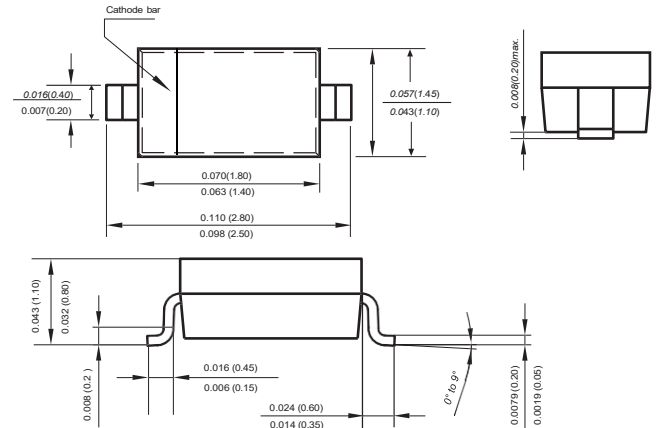


SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

Features

- ◆ Easy to pick and place
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ Superfast recovery times for high efficiency

SOD-323



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%.

Parameter	SYMBOLS	SF11WS	SF12WS	SF13WS	SF14WS	SF15WS	SF16WS	SF18WS	UNITS
Marking Code		F11	F12	F13	F14	F15	F16	F18	
Maximum repetitive peak reverse voltage	V _{RMM}	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
Maximum average forward rectified current at T _C = 125 °C	I _{F(AV)}	0.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	15							A
Maximum instantaneous forward voltage at 0.5A	V _F	1.0				1.25		1.68	V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5 100							uA
Typical junction capacitance (NOTE 3)	C _J	15							pF
Typical reverse recovery time (NOTE 2)	T _{rr}	35							ns
Operating junction temperature range	T _J	-55 to +150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Note: 1. P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.
 2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$
 3. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 4. The typical data above is for reference only.

Typical Characterisitics

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

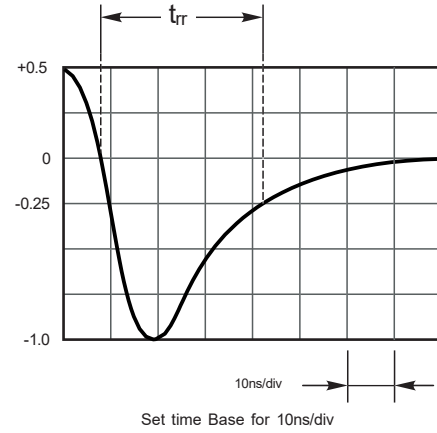
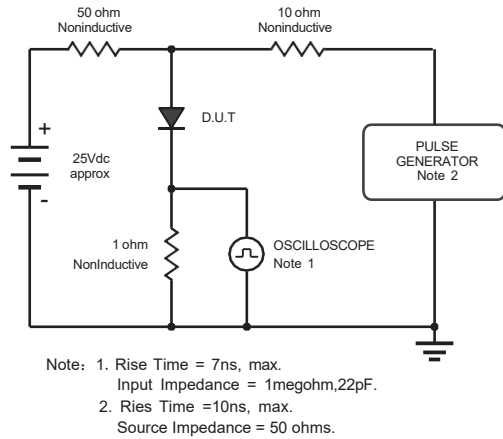


Fig.2 Maximum Average Forward Current Rating

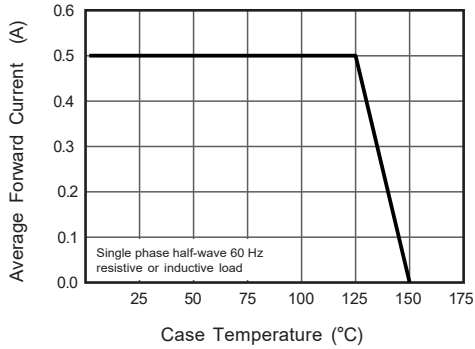


Fig.3 Typical Reverse Characteristics

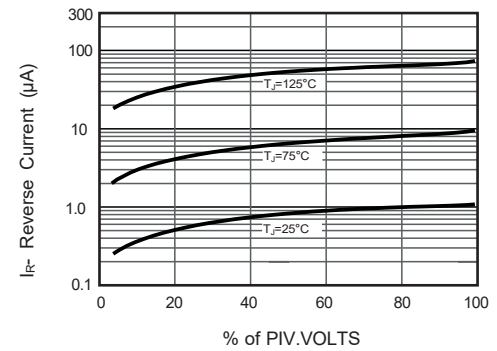


Fig.4 Typical Forward Characteristics

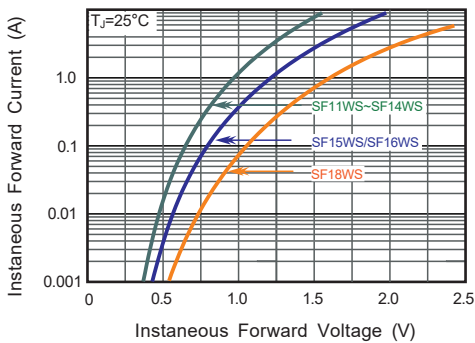


Fig.5 Typical Junction Capacitance

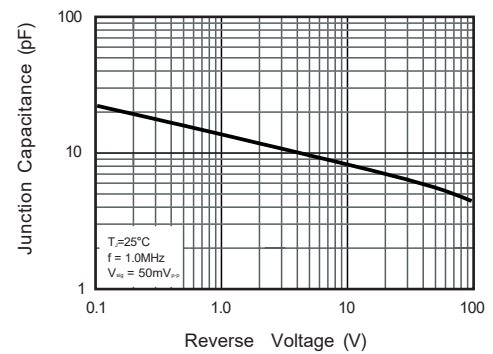
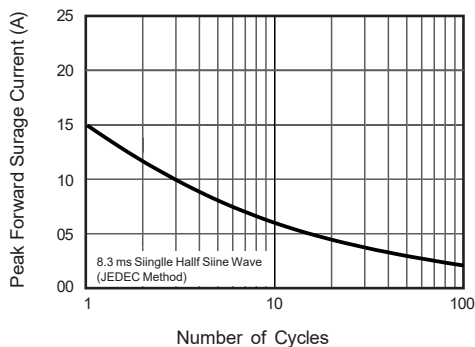


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.