

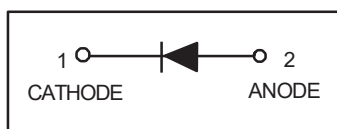
1.0Amp Fast Recovery Surface Mounted Rectifiers

Description

Type OVDfX series are 2-pin SOD123FL package 1.0Amp Fast Recovery Rectifiers.

Features

- ✧ Reverse voltage from 50V to 1000V
- ✧ Forward current : 1A
- ✧ Low reverse leakage
- ✧ High forward surge current capability



Circuit Diagram

Applications

- ✧ Circuits for Constant Voltage
- ✧ Constant Current, Waveform clipper
- ✧ Surge absorber



SOD123FL

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	OVDF1	OVDF2	OVDF3	OVDF4	OVDF5	OVDF6	OVDF7	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T _L =100 °C	I _(AV)	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.30							V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	2.0 200							uA
Maxinum reverse recovery time(Note 1)	T _{rr}	150				250	500		ns
Typical junction capacitance (Note2)	C _J	9.0							pF
Typical thermal resistance	R _{qJA}	85.0							°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150							°C

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

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

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

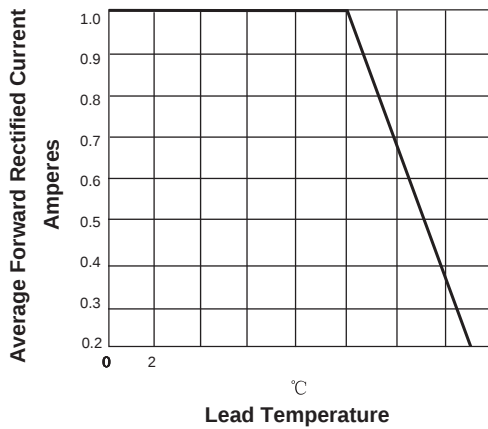


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

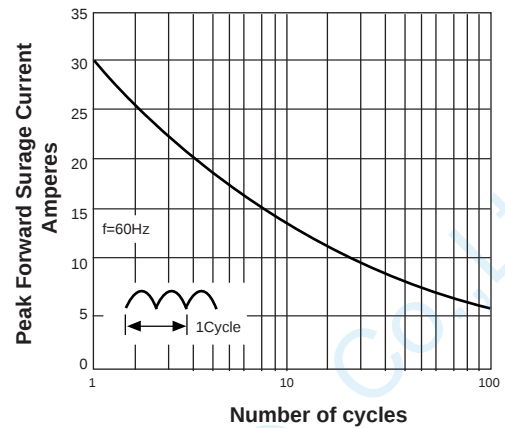


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

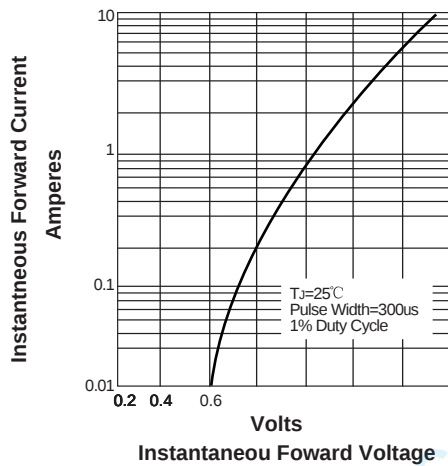
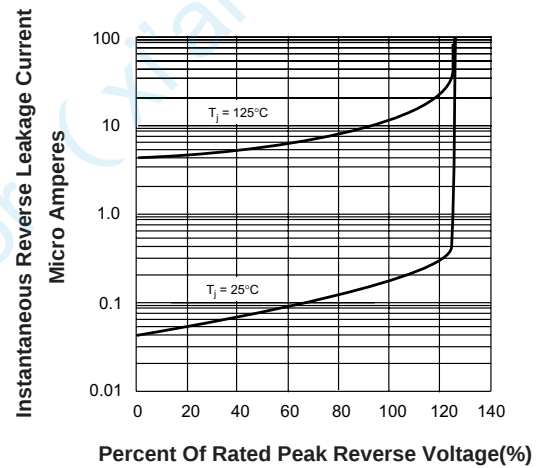
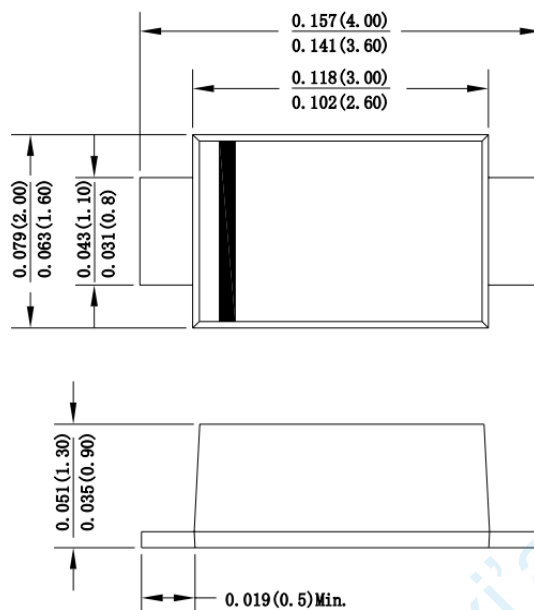


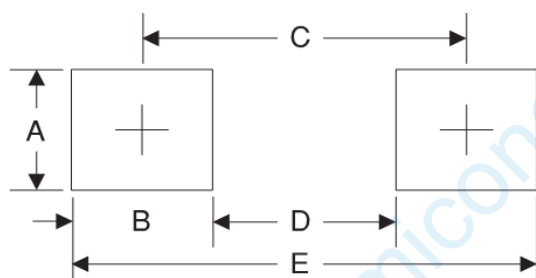
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Information



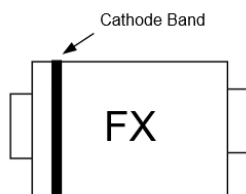
Recommend PCB Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.048
B	1.15	0.045
C	3.10	0.122
D	1.95	0.077
E	4.25	0.167

Notes: This PCB Layout Is For Reference Purposes Only

Marking



X: Voltage Code
 1 --- VRRM=50V
 2 --- VRRM=100V
 3 --- VRRM=200V
 4 --- VRRM=400V
 5 --- VRRM=600V
 6 --- VRRM=800V
 7 --- VRRM=1000V

Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVDFx Series	GREEN	T/R	7 inch	3k/reel	5reel= 15k/box	10boxes=150k/carton