1.0Amp Fast Recovery Surface Mounted Rectifiers

Description

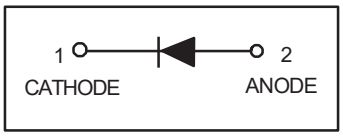
Type OVDFx series are 2-pin SOD123FL package 1.0Amp Fast Recovery Rectifiers.

Features

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

Applications

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



Circuit Diagram



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℃	$I_{(AV)}$	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℃ at rated DC blocking voltage T_A=125℃	I_R	2.0 200							u A
Maxinum reverse recovery time(Note 1)	Trr	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: IF=0.5A IR=1.0A Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

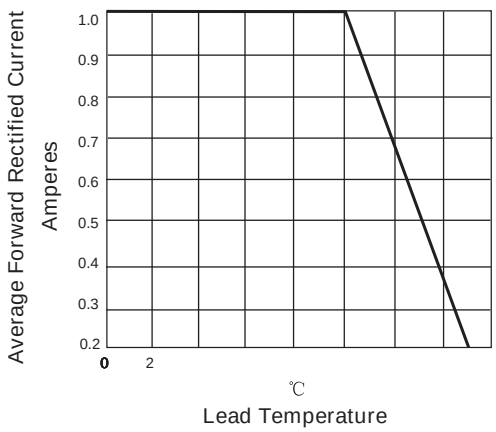


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

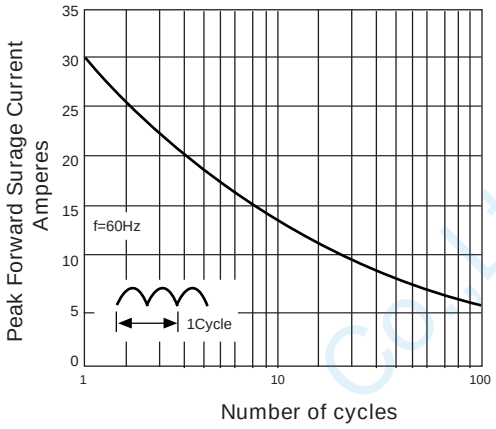


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

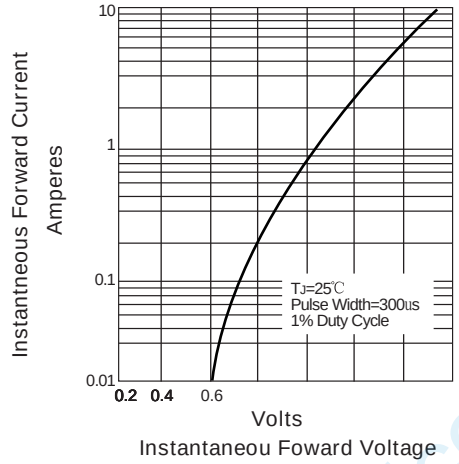
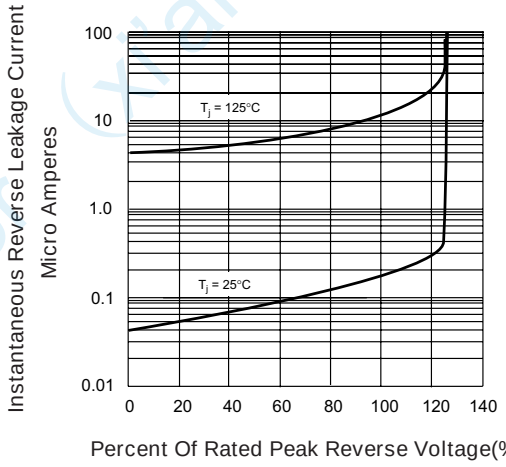


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



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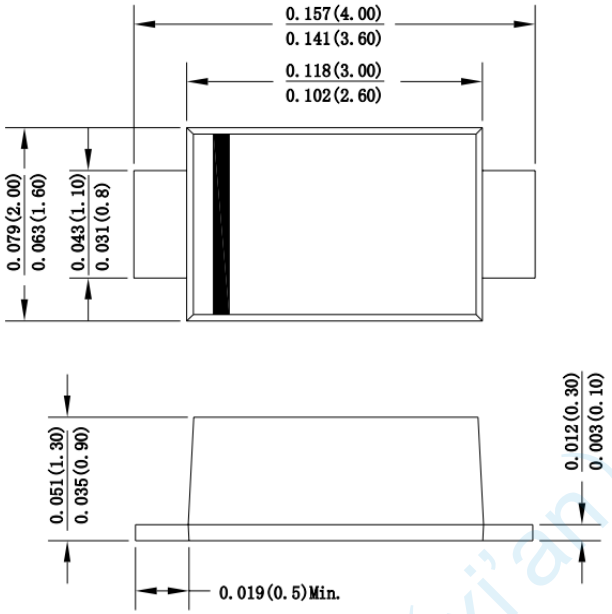
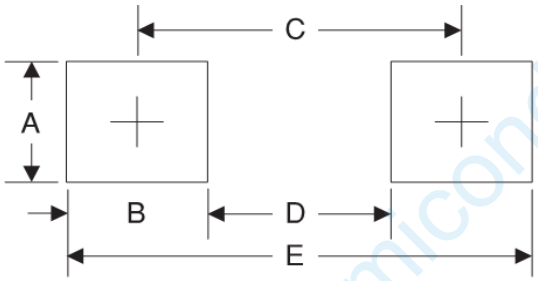
Package Information



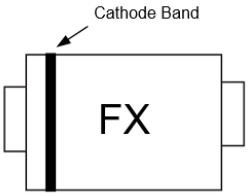
Recommend PCB Layout



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 ---- V_{RRM}=50V
2 ---- V_{RRM}=100V
3 ---- V_{RRM}=200V
4 ---- V_{RRM}=400V
5 ---- V_{RRM}=600V
6 ---- V_{RRM}=800V
7 ---- V_{RRM}=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

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