OV Semiconductor

2.0Amp Super Fast Recovery Surface Mounted Rectifiers

Description

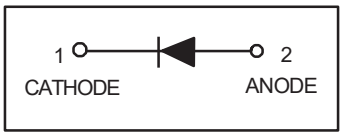
Type OVDES2xF series are 2-pin SMAF package 2.0Amp Fast Recovery Rectifiers.

Features

- ✧ Reverse voltage from 50V to 600V
- ✧ Forward current : 2A
- ✧ Low reverse leakage
- ✧ High forward surge current capability

Applications

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



Circuit Diagram



SMAF

Maximum Ratings And Electrical Characteristics

Parameter	SYMBOLS	OVDES2AF	OVDES2BF	OVDES2CF	OVDES2DF	OVDES2EF	OVDES2GF	OVDES2JF	UNITS
Maximum repetitive 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
Maximum average forward rectified current at T_L=100℃	$I_{(AV)}$	2.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50.0							A
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.25		1.7	V
Maximum DC reverse current T_A =25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50.0							u A
Maxinum reverse recovery time(Note 1)	Trr	35							ns
Typical junction capacitance (Note2)	C_J	60.0							pF
Typical thermal resistance	R_{qJA}	40.0							°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- FORWARD CURRENT DERATING CURVE

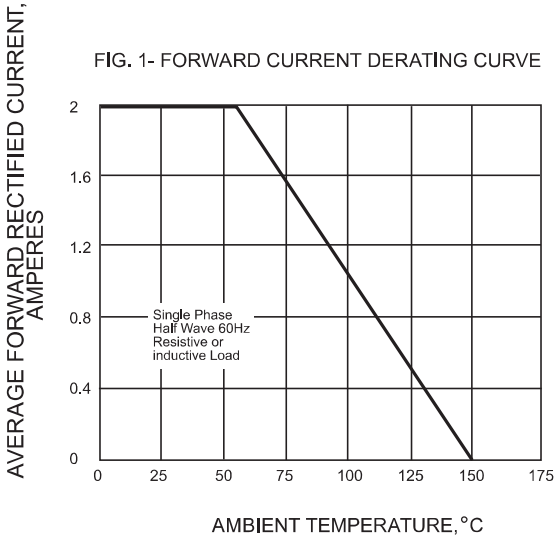


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

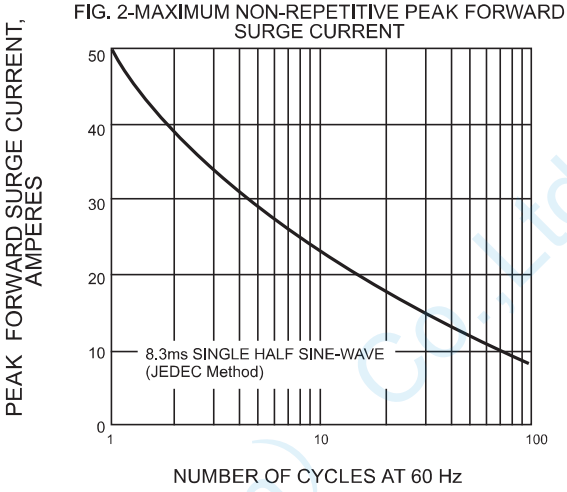


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

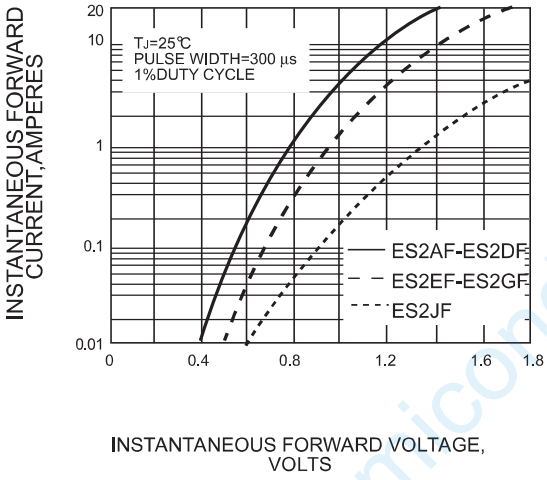


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

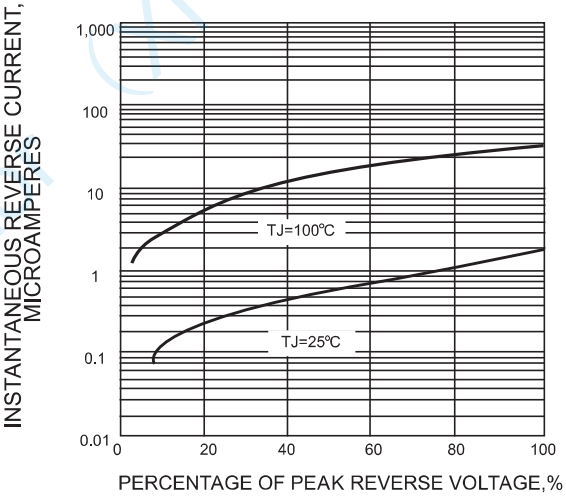


FIG. 5-TYPICAL JUNCTION CAPACITANCE

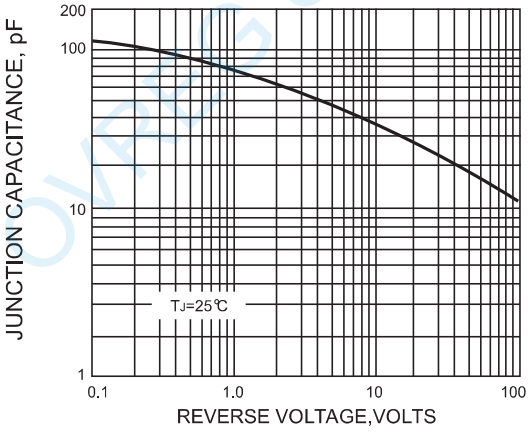
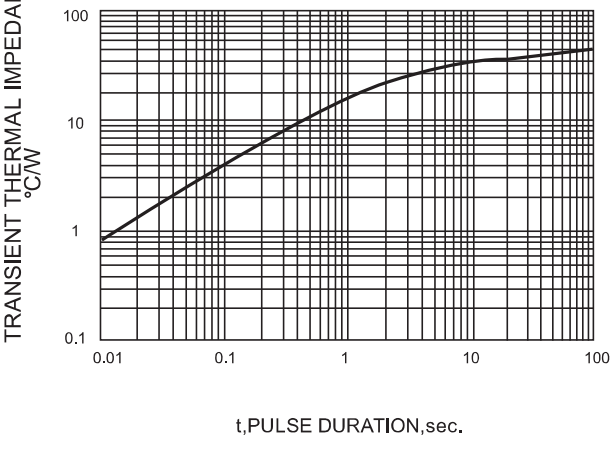
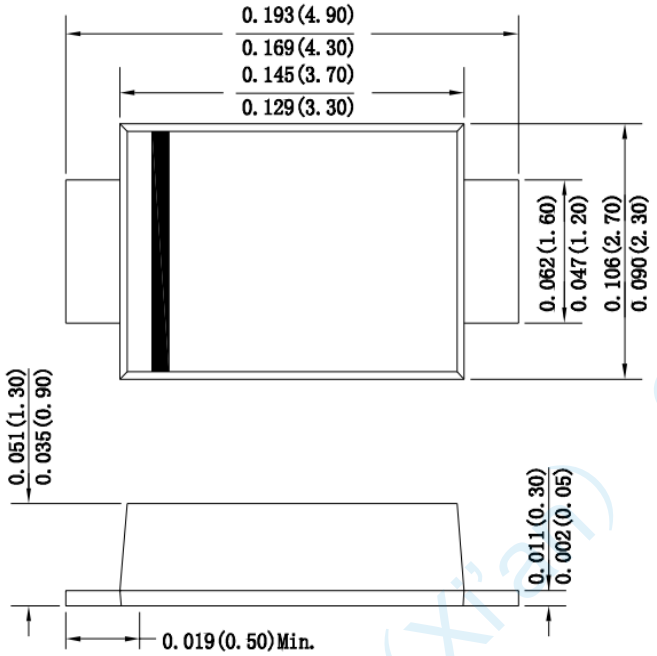


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

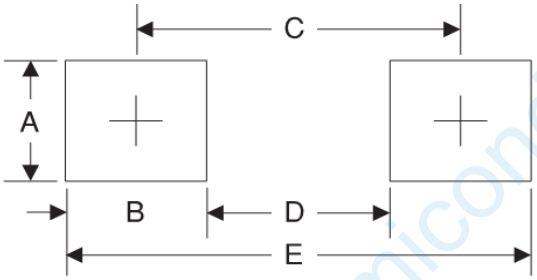


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Package Information



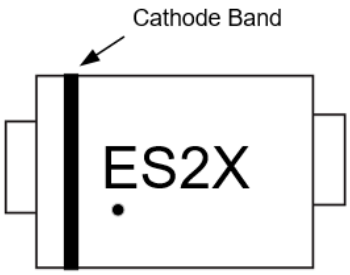
Recommend PCB Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.00	0.078
E	5.10	0.200

Notes: This PCB Layout Is For Reference Purposes Only

Marking



X：Voltage Code
A ---- V_{RRM}=50V
B ---- V_{RRM}=100V
C ---- V_{RRM}=150V
D ---- V_{RRM}=200V
E ---- V_{RRM}=300V
G ---- V_{RRM}=400V
J ---- V_{RRM}=600V

Ordering Information

Part number	Material	Type	Reel size	MOQ
OVDES2xF Series	GREEN	T/R	7 inch	3k/reel

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