

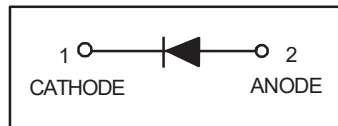
2.0Amp Super Fast Recovery Surface Mounted Rectifiers

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



Circuit Diagram

Applications

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



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°C	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°C at rated DC blocking voltage T _A =100°C	I _R	5.0 50.0							uA
Maximum reverse recovery time(Note 1)	T _{rr}	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

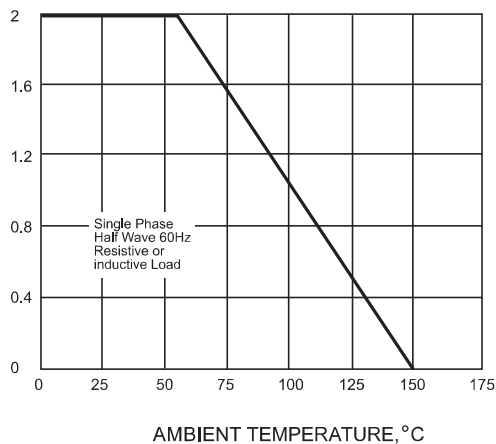
Note: 1.Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

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

Ratings And Characteristic Curves

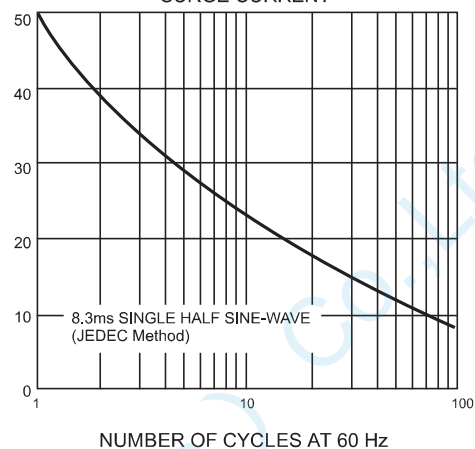
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



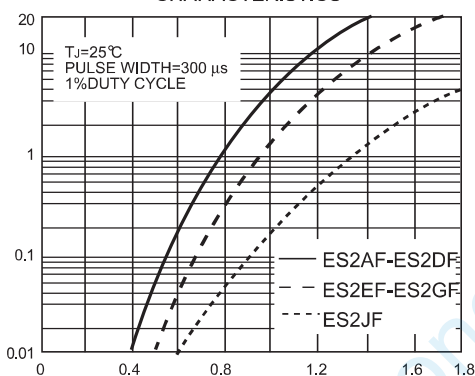
PEAK FORWARD SURGE CURRENT,
AMPERES

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



INSTANTANEOUS FORWARD
CURRENT, AMPERES

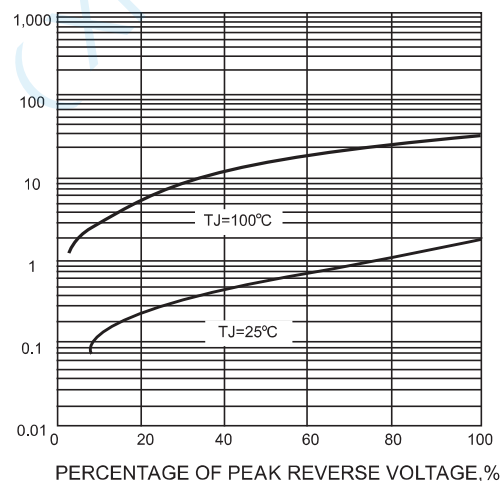
FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE,
VOLTS

INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

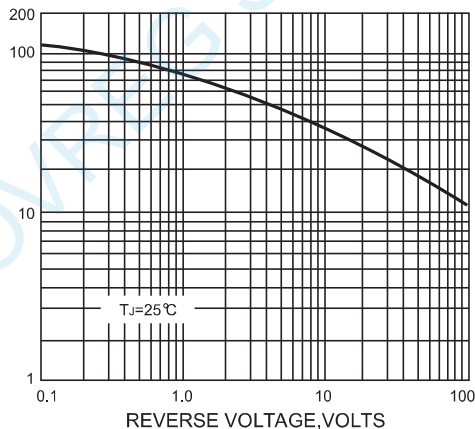
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENTAGE OF PEAK REVERSE VOLTAGE, %

JUNCTION CAPACITANCE, pF

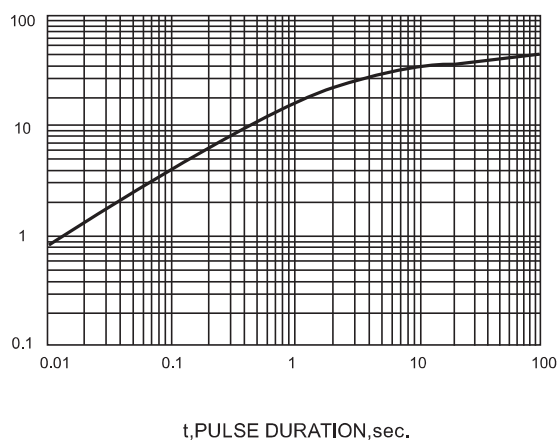
FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS

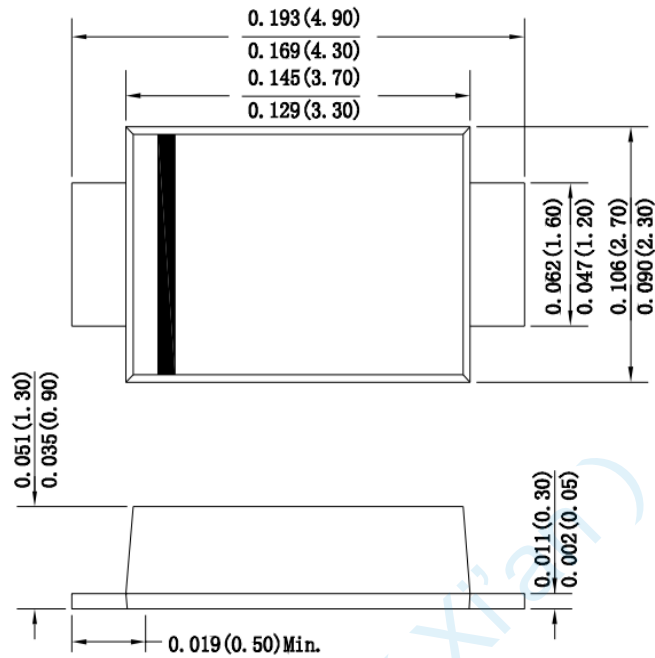
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

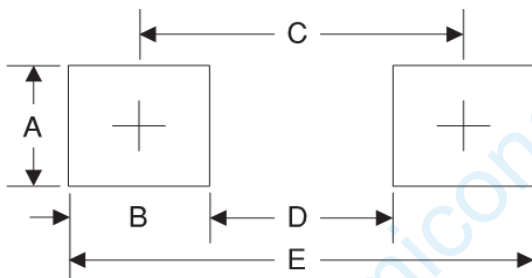


t, PULSE DURATION, sec.

Package Information



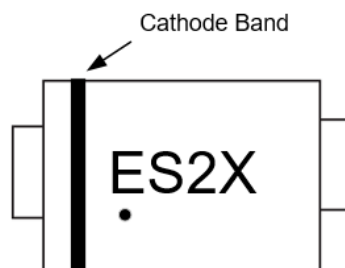
Recommend PCB Layout



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