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DES1A THRU DES1M

Surface Mount Super Fast Recovery Rectifiers

Reverse Voltage 50 ~ 1000V
Forward Current 1.0 A

Features

- Low reverse leakage
- High forward surge capability
- High reliability
- High temperature soldering guaranteed: 260℃/10seconds
- Lead and body according with RoHS standard
- Green compound with suffix "-F" on Marking

SOD-123FL

Mechanical Data

- Case:SOD-123FL Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free

Maximum Ratings & Characteristics

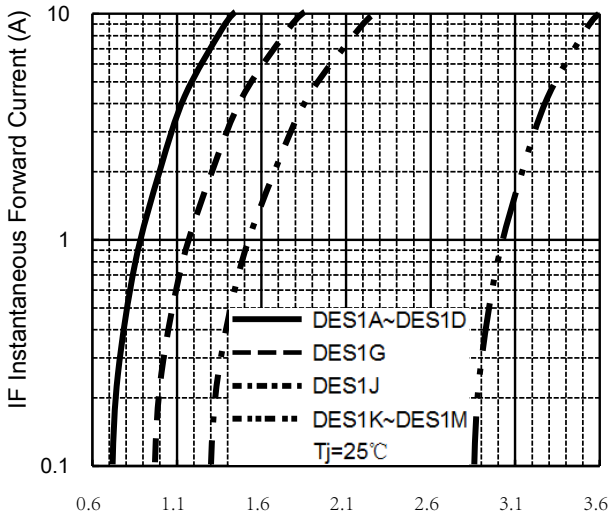
Ratings at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbols	DES1A	DES1B	DES1D	DES1G	DES1J	DES1K	DES1M	Unit
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	$I_{F(AV)}$	1.0							A
Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave	I_{FSM}	30					20		A
@IF=1.0A Maximum forward voltage	V_F	0.95			1.30	1.70	3.20		V
@V_{DC} TA= 25℃	I_R	5							μA
Maximum reverse current TA= 125℃		100							
IF=0.5A,IR=1.0A,IRR=0.25A MAX. reverse recovery time	T_{RR}	35							ns
Typical thermal resistance (Note 1)	$R_{\theta JA}$	125							℃/W
VR=4.0V,f=1MHz Type junction capacitance	C_J	25							pF
Operating junction temperature rang	T_J	-55 --- +150							℃
Storage temperature rang	T_{STG}	-55 --- +150							℃

Note:
1) Thermal resistance from junction to ambient, PCB mounted.

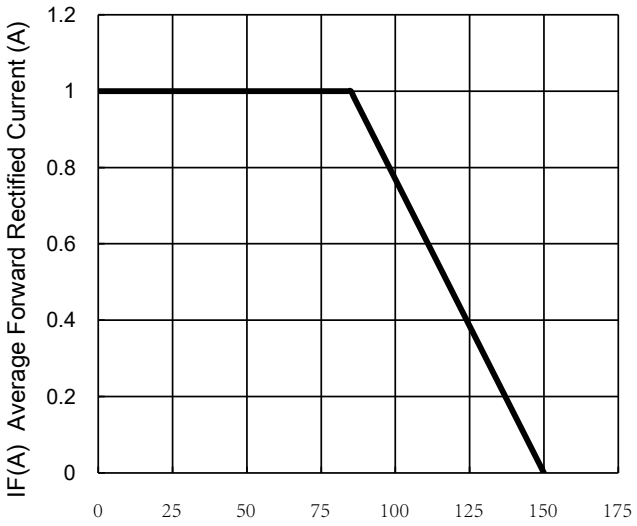
Characteristic Curves

TYPICAL FORWARD CHARACTERISTIC



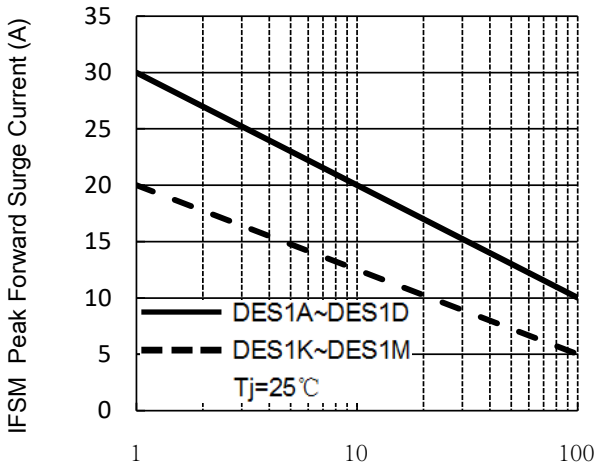
VF Instantaneous Forward Voltage (V)

FORWARD CURRENT DERATING CURVE



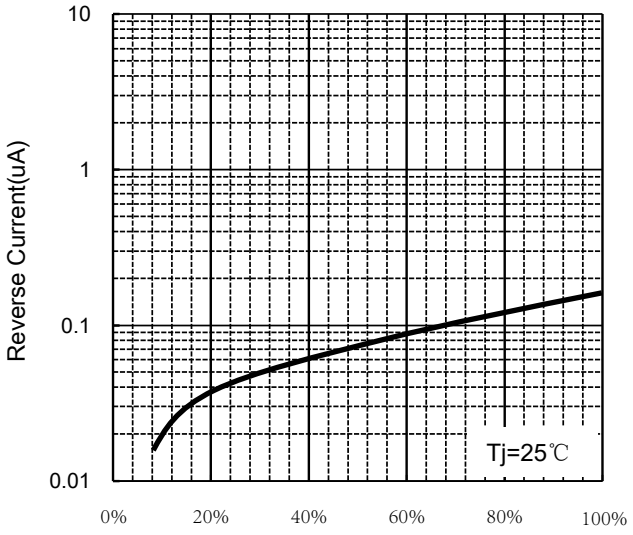
Tamb, ambient temperature (°C)

MAXIMUM NON REPETITIVE
PEAK FORWARD SURGE CURRENT



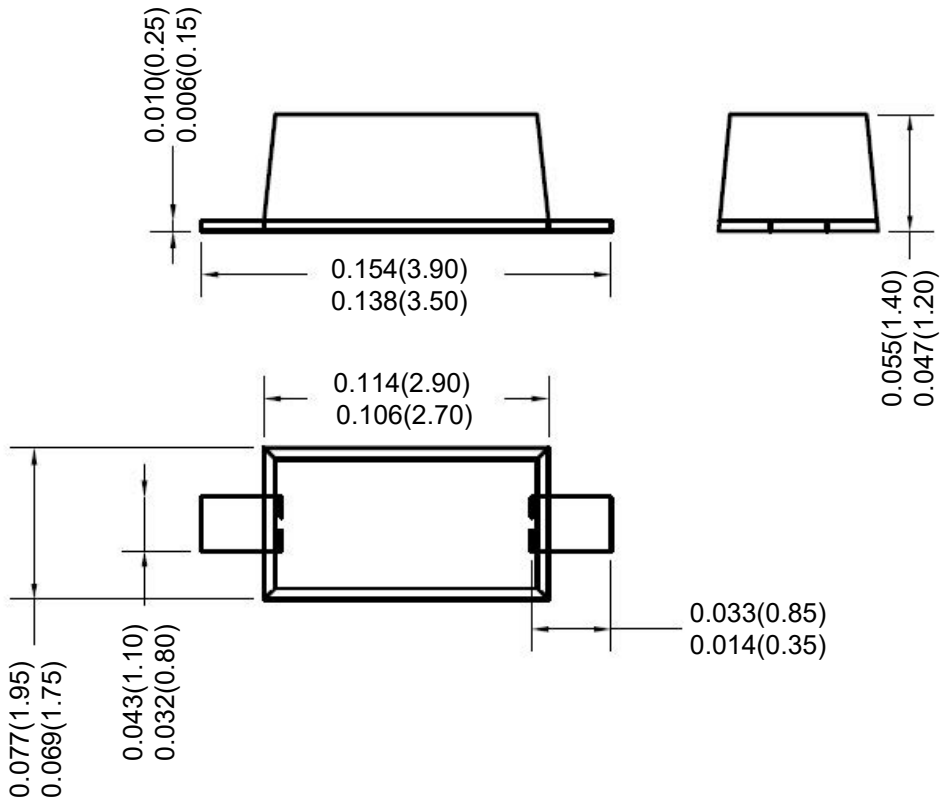
Number of Cycles at 60 Hz.

Typical Reverse Characteristics



Percent Of Rated Peak Reverse voltage %

Package Outline



Unit: inch (mm)

Package Information

Qty：3,000 /Tape and reel