ES1000FL – ES1006FL

SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Glass passivated chip junctions
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- High temperature soldering guaranteed: 260°C/10 seconds on terminals
- RoHS Compliant Product

Mechanical Data

Case: SOD-123S molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

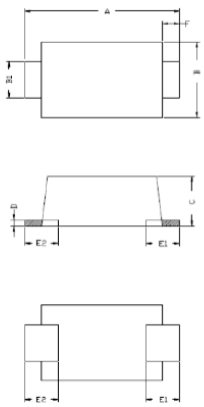
Polarity: Color band denotes cathode end

Weight: 0.017 gram

Packing & Order Information

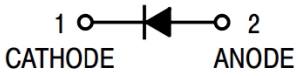
3,000/Reel

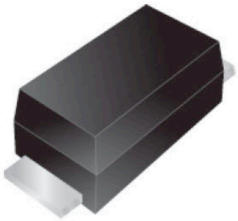
SOD123S



Dimension	Millimeters		Inches	
	Min	Max	Min	Max
A	3.50	3.90	0.138	0.154
B	1.60	2.00	0.063	0.079
B1	0.80	1.00	0.031	0.039
C	1.00	1.40	0.039	0.055
D	0.12	0.20	0.005	0.008
E1	0.60	1.00	0.024	0.039
E2	0.60	1.00	0.024	0.039
F	0.20	0.60	0.008	0.024

Graphic symbol





RoHS
COMPLIANT

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		ES 1000FL	ES 1001FL	ES 1002FL	ES 1004FL	ES 1006FL	Unit
V_{RRM}	Maximum repetitive peak reverse voltage	50	100	200	400	600	V
V_{RWS}	Maximum RMS voltage	35	70	140	280	420	V
V_{DC}	Maximum DC blocking voltage	50	100	200	400	600	V
$I_{F(AV)}$	Maximum average forward rectified current at TL=110°C	1					A
I_{FSM}	Peak forward surge current 8.3ms single half-sine-wave	30					A
V_F	Maximum instantaneous forward voltage at IFM=1.0A	0.95			1.25	1.7	V
I_R	Maximum DC reverse current TJ=25°C At rated DC blocking voltage TA=100°C	5 200					uA

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Ratings at 25°C ambient temperature unless otherwise specified							
		ES 1000FL	ES 1001FL	ES 1002FL	ES 1004FL	ES 1006FL	Unit
Trr	Maximum reverse recovery time	35					nS
Cj	Typical junction capacitance	10					PF
$R_{\theta JA}$	Maximum thermal resistance	82					°C/W
$R_{\theta JL}$		27					°C/W
T_{STG}	Storage temperature range	-55 to +150					°C

NOTE:

1. Pluse test: Pulse width 300us, duty cycle 1%

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□Ratings and Characteristic Curves

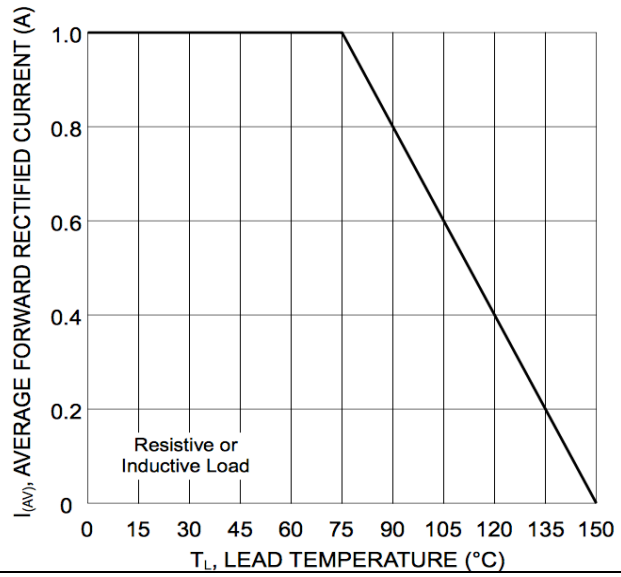

FIG.1-FORWARD DERATING CURVE

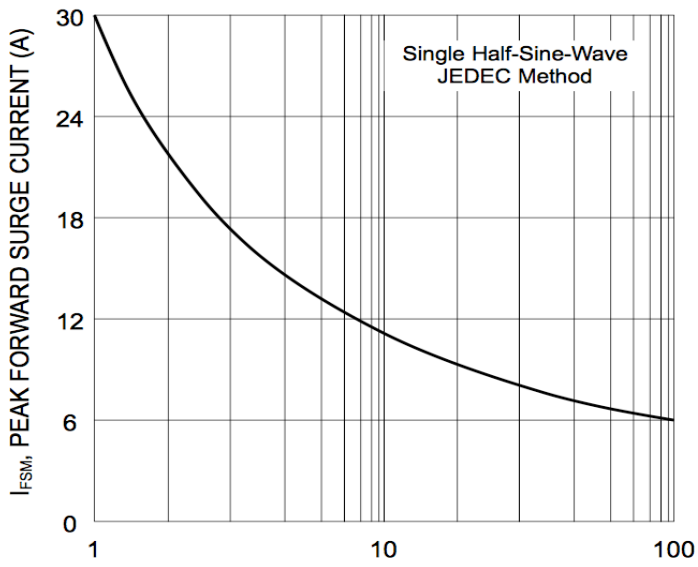

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

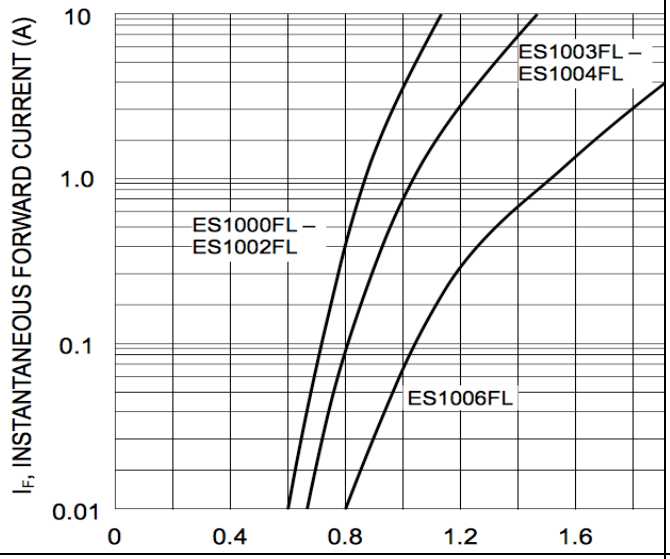

FIG.3-TYPICAL FORWARD CHARACTERISTICS

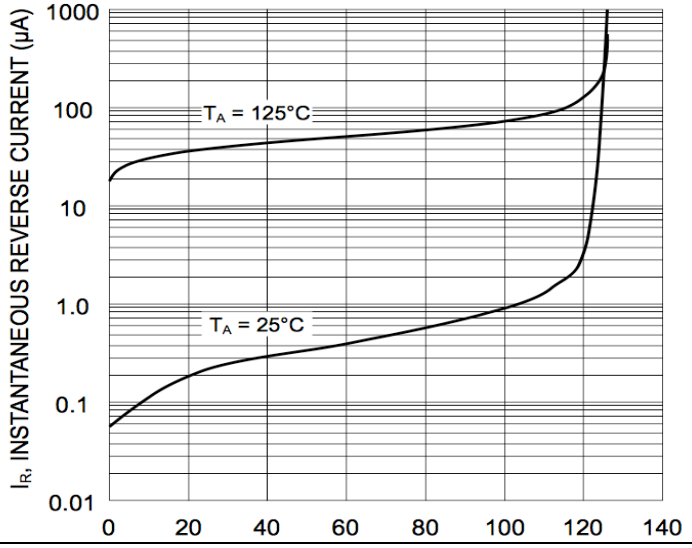

FIG.4-TYPICAL REVERSE CHARACTERISTICS

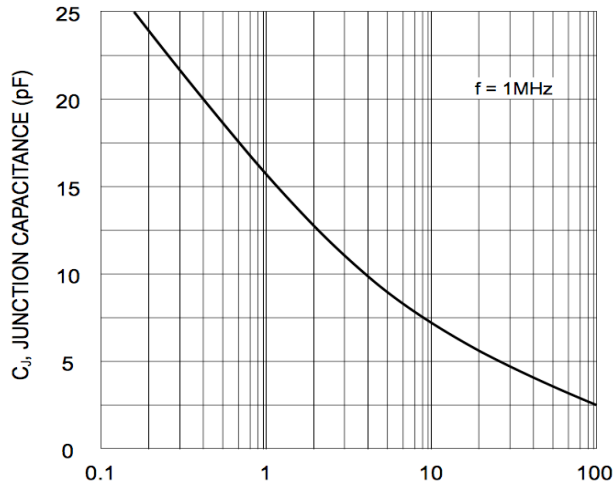

FIG.5-TYPICAL JUNCTION CAPACITANCE

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