



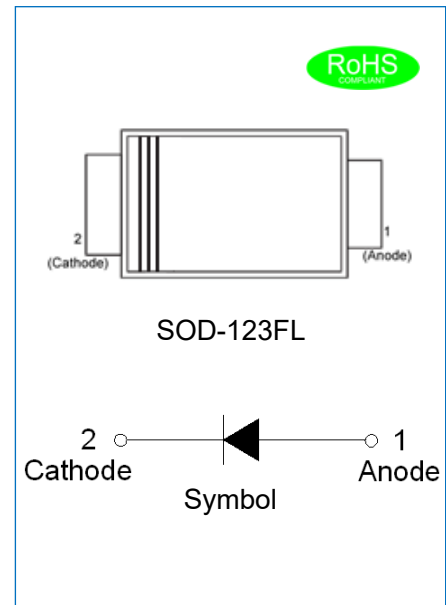
## JSPI240A

### 2A Schottky Barrier Rectifier

Rev.1.4

#### DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ For surface mounted applications in order to optimize board space
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive
- ✧ Ultra low forward voltage drop
- ✧ Low power losses, high efficiency operation
- ✧ High current capability and surge capability
- ✧ Low thermal resistance package



#### MECHANICAL DATA

- ✧ Case: SOD-123FL molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end

#### ABSOLUTE MAXIMUM RATING (Rating at 25°C ambient temperature unless otherwise specified.)

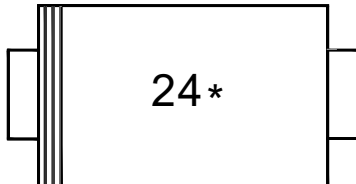
Parameter	Symbol	JSPI240A	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC blocking voltage	$V_{DC}$	40	V
Average forward current	$I_{F(AV)}$	2.0	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50	A
Operating junction temperature range	$T_j$	-55 to +125	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C

#### ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified.)

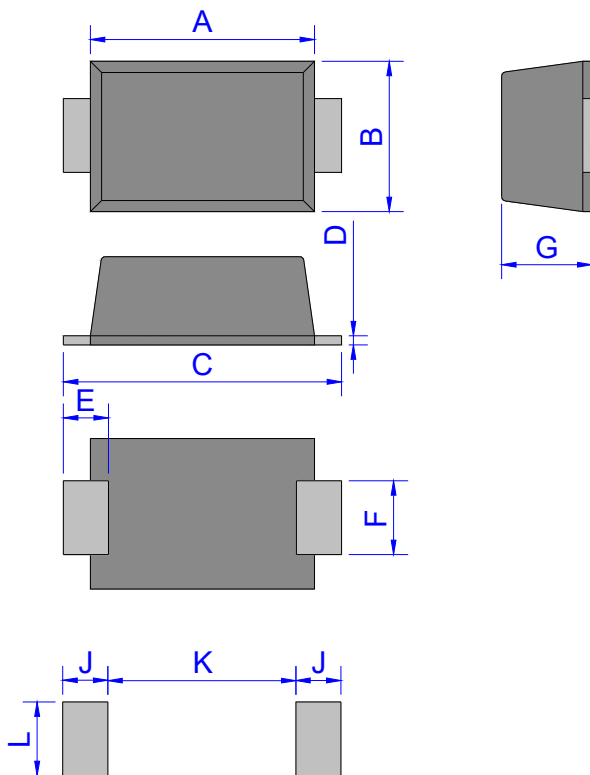
Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=2A$ $V_F$			0.55	V
Reverse current at rated DC blocking voltage	$T_A=25^\circ C$ $I_R$			0.1	mA
	$T_A=100^\circ C$			10	
Junction capacitance	$V_R=4.0V, f=1MHz$ $C_J$		150		pF

**THERMAL RESISTANCES**

Symbol	Parameter	JSPI240A	Unit
$R_{th(j-a)}$	Thermal resistances from junction to ambient	85	$^{\circ}C/W$

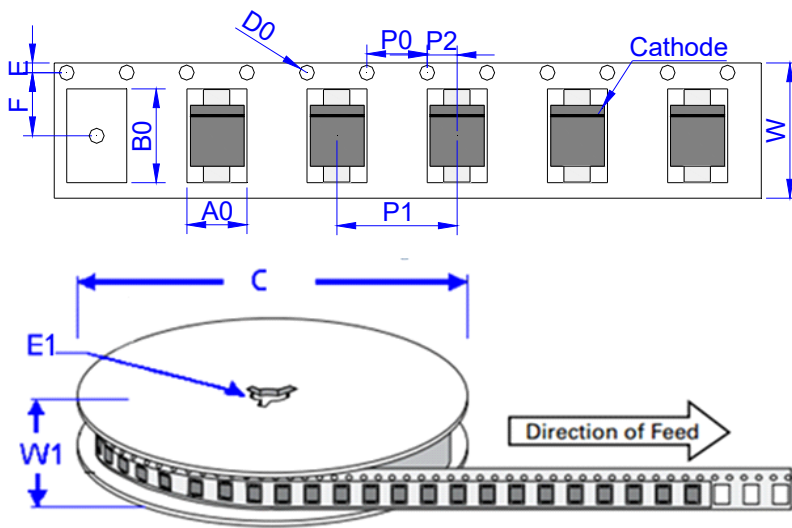
**MARKING**


2	$I_{F(AV)}:2A$
4	$V_{RRM}:40V$
*	Chip code

**PACKAGE MECHANICAL DATA**


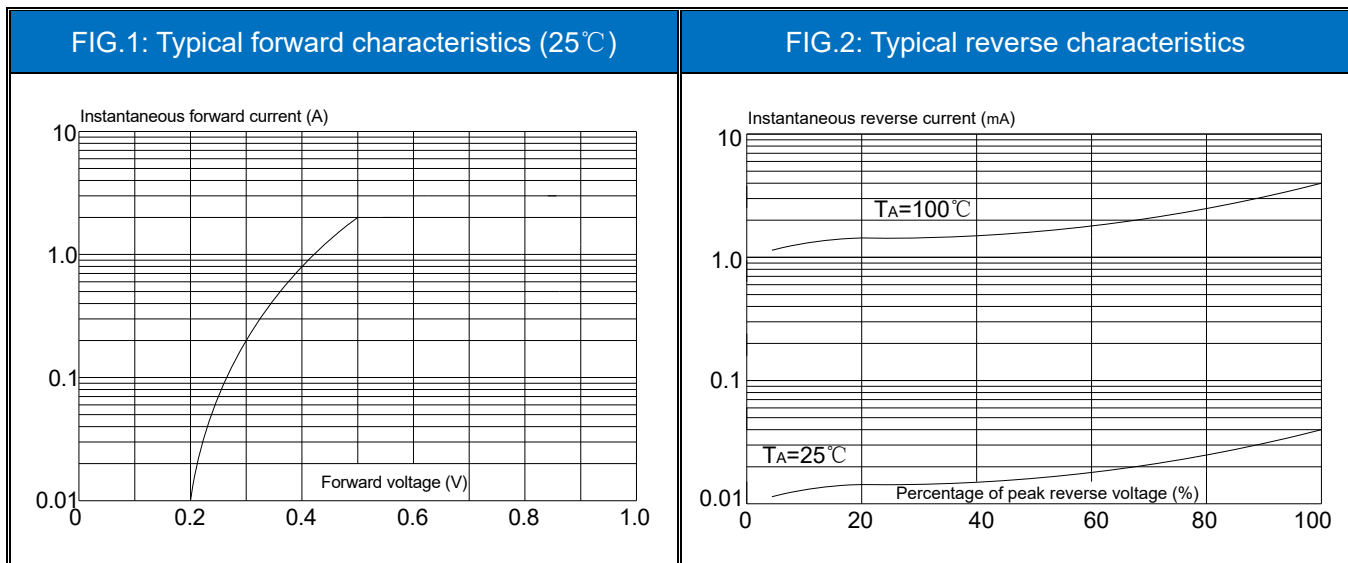
SOD-123FL

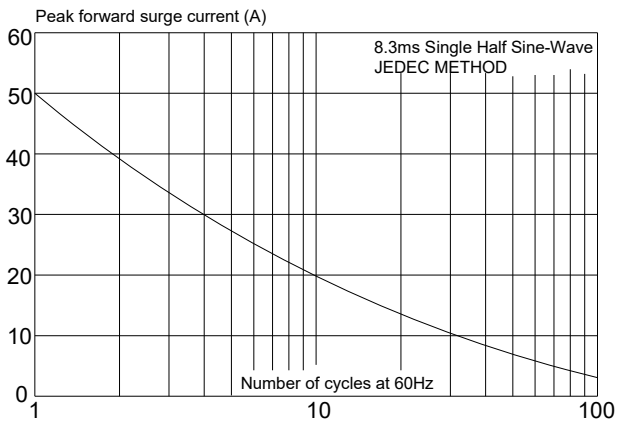
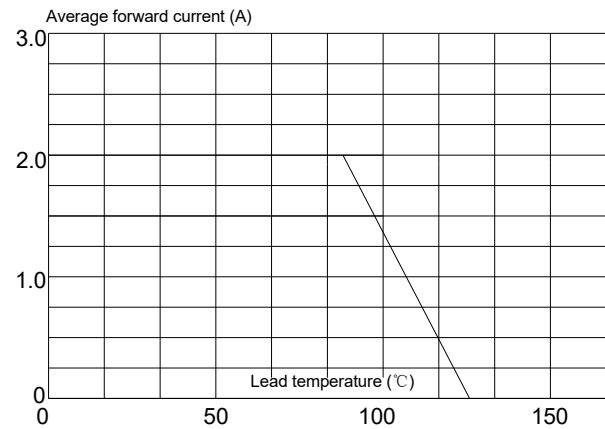
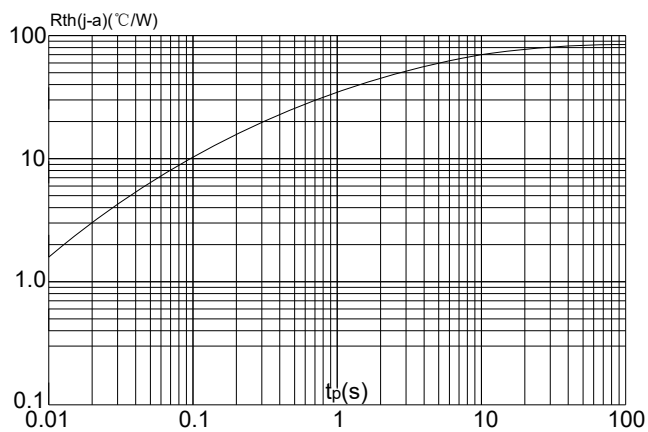
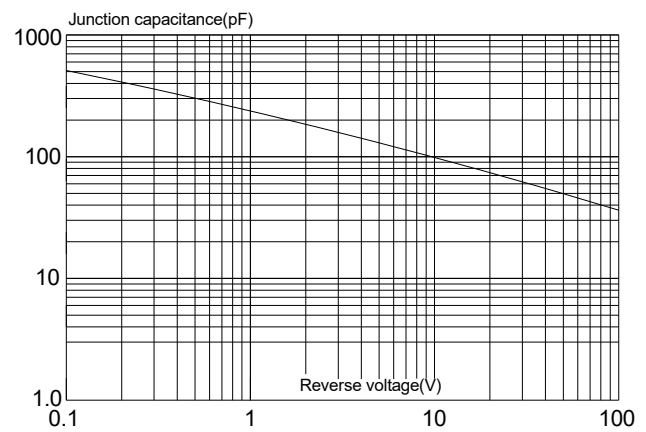
Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.01
E	0.3	0.9	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.95	1.35	0.037	0.053
J	1.30		0.051	
K		1.70		0.067
L	1.30		0.051	

**TAPE AND REEL SPECIFICATION-SOD-123FL**


Ref.	Dimensions	
	Millimeters	Inches
A0	1.95 ± 0.3	0.077± 0.012
B0	3.95 ± 0.3	0.156 ± 0.012
C	178	7.0
D0	1.55 ± 0.1	0.061 ± 0.004
E	1.75 ± 0.2	0.069 ± 0.008
E1	13.3 ± 0.3	0.524± 0.012
F	3.50 ± 0.2	0.138 ± 0.008
P0	4.00 ± 0.2	0.157 ± 0.008
P1	4.00 ± 0.2	0.157 ± 0.008
P2	2.00 ± 0.2	0.079 ± 0.008
W	8.0± 0.2	0.315 ± 0.008
W1	11.5 ± 1.0	0.453 ± 0.039

PART No.	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	DESCRIPTION
JSPI240A	0.0144	3,000	150,000	7 inch reel pack

**CHARACTERISTICS CURVE**


**CHARACTERISTICS CURVE**
**FIG.3: Maximum non-repetitive peak forward surge current**

**FIG.4: Forward current derating curve**

**FIG.5: Maximum transient thermal impedance**

**FIG.6: Typical junction capacitance**





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