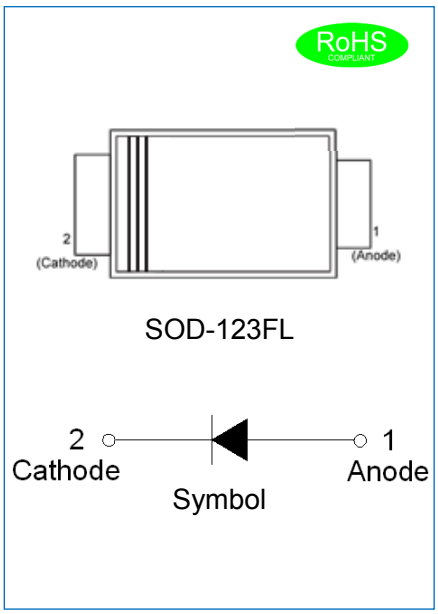
JSPI240A~JSPI2200A

2A Schottky Barrier Rectifier

Rev.1.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Exceeds environmental standards of MIL-S-19500/228
- ✧ 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: JEDEC SOD-123FL molded plastic
- ✧ Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- ✧ Polarity: Color band denotes cathode end

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified.)

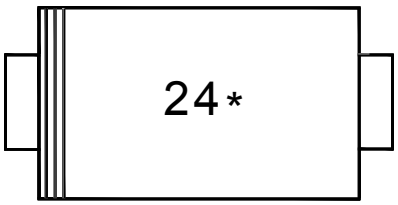
Parameter		Symbol	JSPI 240A	JSPI 260A	JSPI 2100A	JSPI 2150A	JSPI 2200A	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	40	60	100	150	200	V
Maximum RMS voltage		V_{RMS}	28	42	70	105	140	V
Maximum DC blocking voltage		V_{DC}	40	60	100	150	200	V
Maximum average forward current		$I_{F(AV)}$	2.0					A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	50					A
Maximum forward voltage @ I_F=2A		V_F	0.55	0.7	0.85	0.9		V
Maximum DC reverse current at rated DC blocking voltage	T_A=25℃	I_R	0.1					mA
	T_A=100℃		10		8			
Typical junction capacitance V_R=4.0V, f=1MHz		C_J	150		110			pF
Operating junction temperature range		T_j	-55 to +125	-55 to +150				℃
Storage temperature range		T_{stg}	-55 to +150					℃

THERMAL RESISTANCES

Symbol	Parameter	JSPI 240A	JSPI 260A	JSPI 2100A	JSPI 2150A	JSPI 2200A	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	85					℃/W

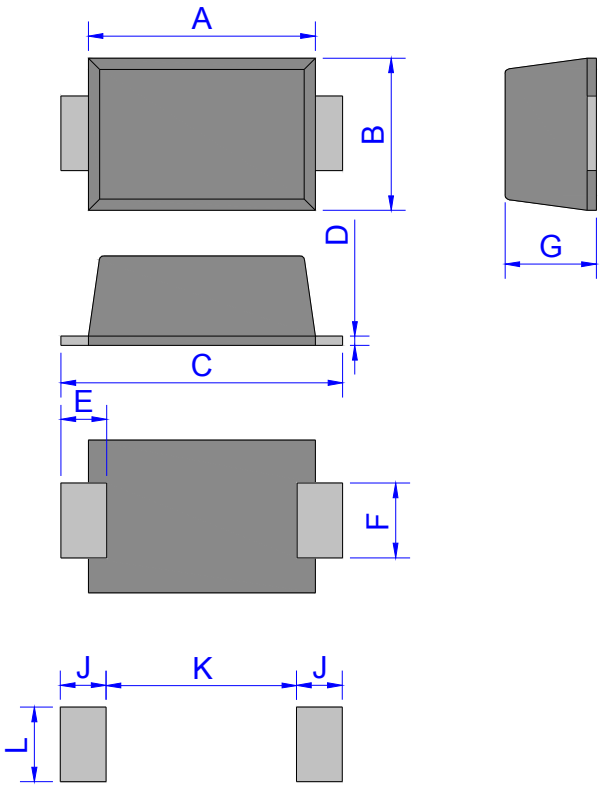
Note1：Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B mounted

MARKING



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

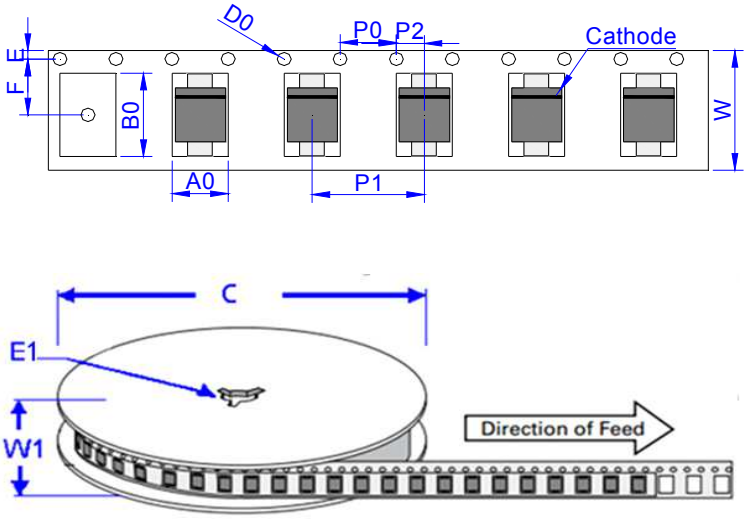
PACKAGE MECHANICAL DATA



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

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.0165	3,000	150,000	178

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics (25℃)

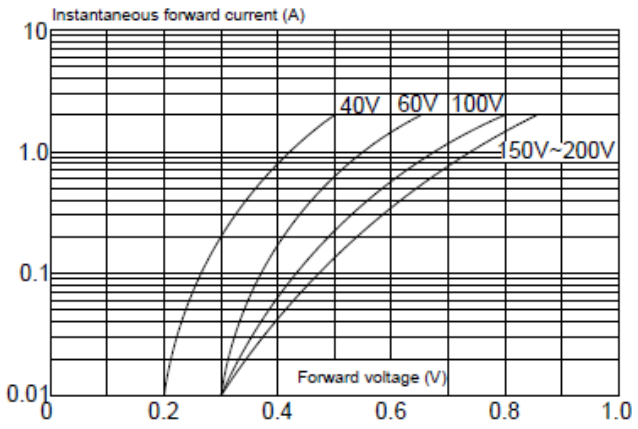
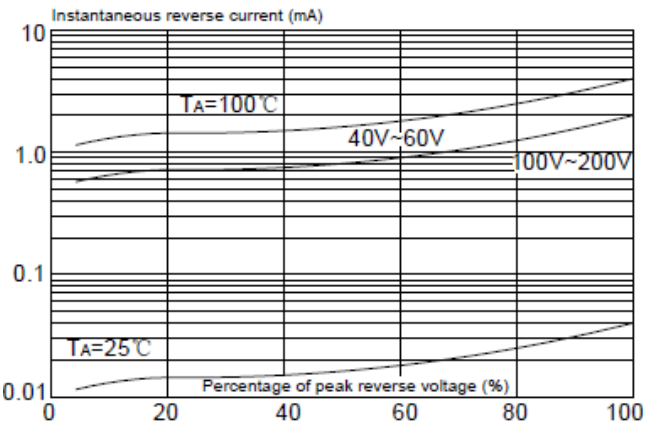


FIG.2: Typical reverse characteristics



CHARACTERITICS CURVE

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

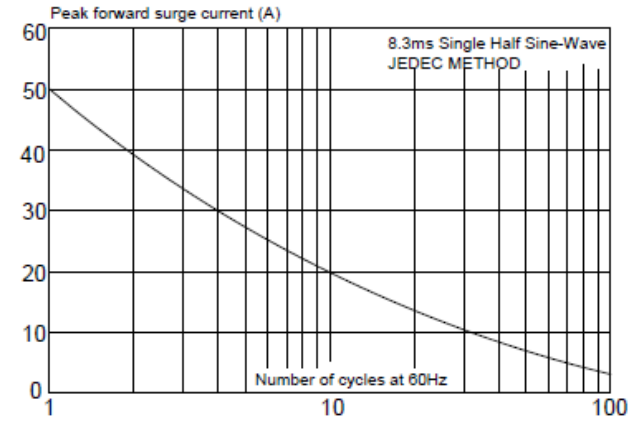


FIG.4: Forward current derating curve

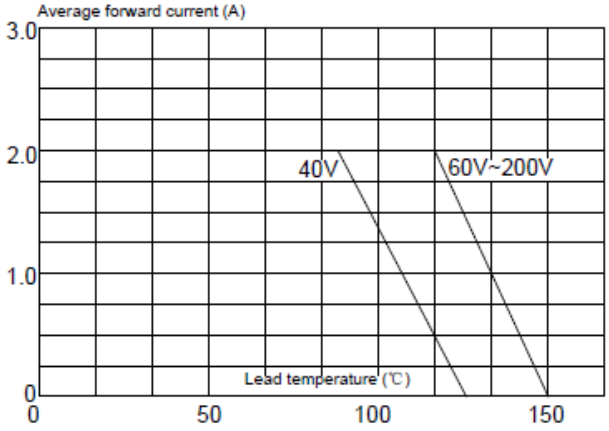


FIG.5: Maximum transient thermal impedance

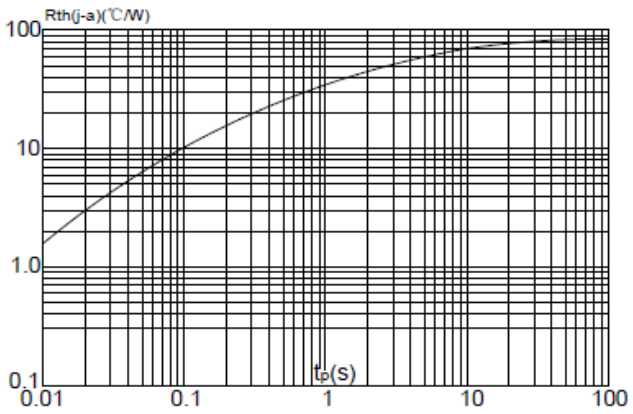


FIG.6: Typical junction capacitance