



JSPD120A~JSPD1200A

1A Schottky Barrier Rectifier

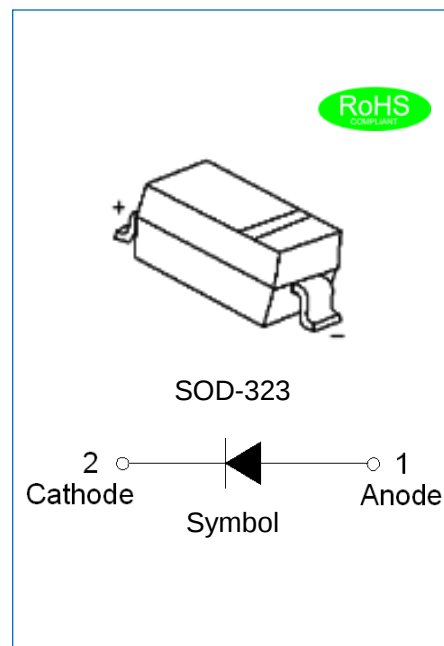
Rev.1.0

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-323 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°C ambient temperature unless otherwise specified.)

Parameter		Symbol	JSPD 120A	JSPD 140A	JSPD 160A	JSPD 1100A	JSPD 1150A	JSPD 1200A	Unit
Maximum repetitive peak reverse voltage		V _{RRM}	20	40	60	100	150	200	V
Maximum RMS voltage		V _{RMS}	14	28	42	70	105	140	V
Maximum DC blocking voltage		V _{DC}	20	40	60	100	150	200	V
Maximum average forward current		I _{F(AV)}	1.0						A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	9						A
Maximum forward voltage @ I _F =1A		V _F	0.55		0.7	0.85	0.90		V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	0.5			0.1			mA
	T _A =100°C		6			5			
Typical junction capacitance V _R =4.0V, f=1MHz		C _J	120						pF
Operating junction temperature range		T _j	-55 to +125		-55 to +150				°C
Storage temperature range		T _{stg}	-55 to +150						°C

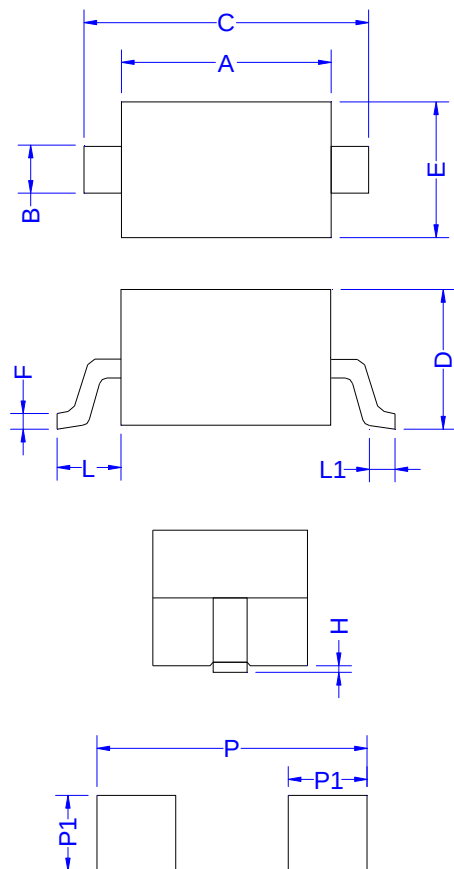


THERMAL RESISTANCES

Symbol	Parameter	JSPD 120A	JSPD 140A	JSPD 160A	JSPD 1100A	JSPD 1150A	JSPD 1200A	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	400						°C/W

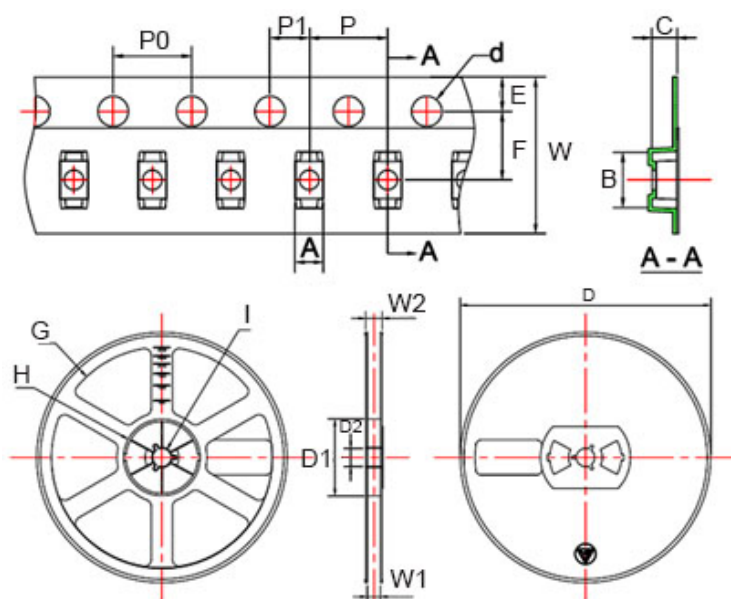
Note1: Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B mounted

PACKAGE MECHANICAL DATA



Land Pattern

Symbol	Millimeter		Inches	
	Min	Max	Min	Max
A	1.60	1.80	0.063	0.071
B	0.25	0.35	0.010	0.014
C	2.50	2.70	0.098	0.106
D	0.00	1.00	0.000	0.039
E	1.20	1.40	0.047	0.055
F	0.08	0.15	0.003	0.006
L	0.475REF		0.019REF	
L1	0.25	0.40	0.010	0.016
H	0.00	0.10	0.000	0.004
P	3.00		0.118	
P1	0.80		0.031	

TAPE AND REEL INFORMATION-SOD-323


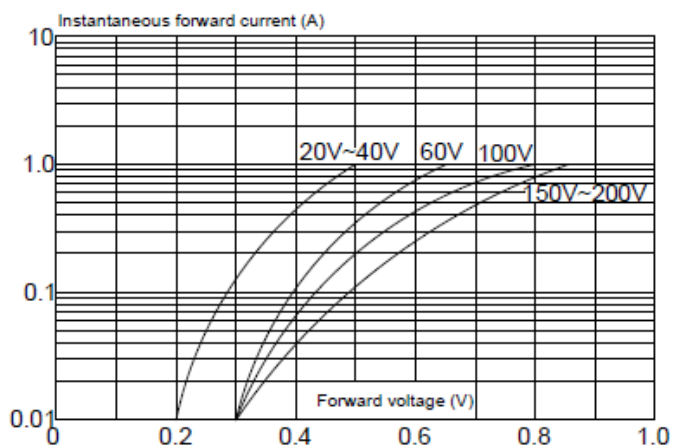
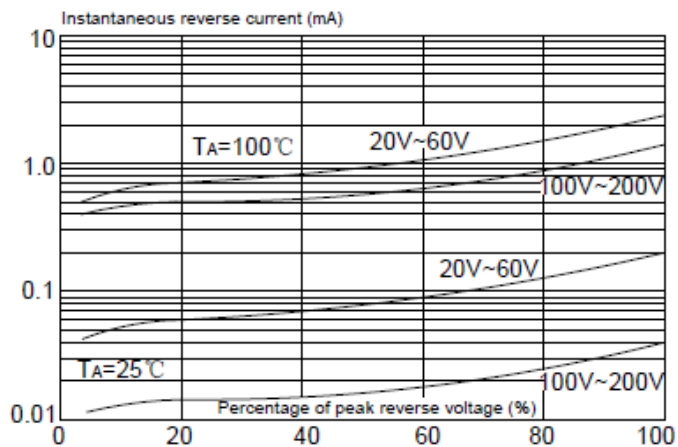
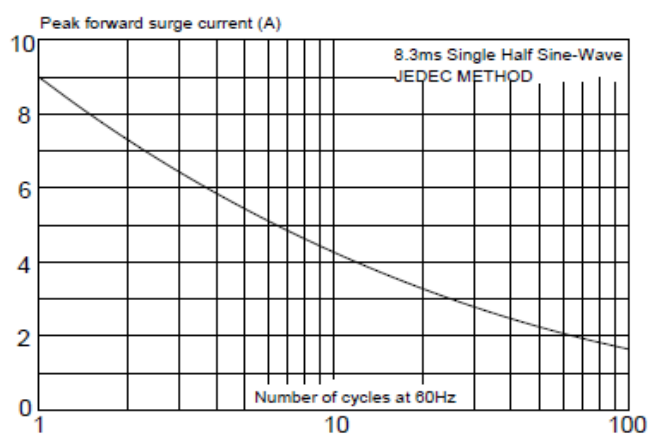
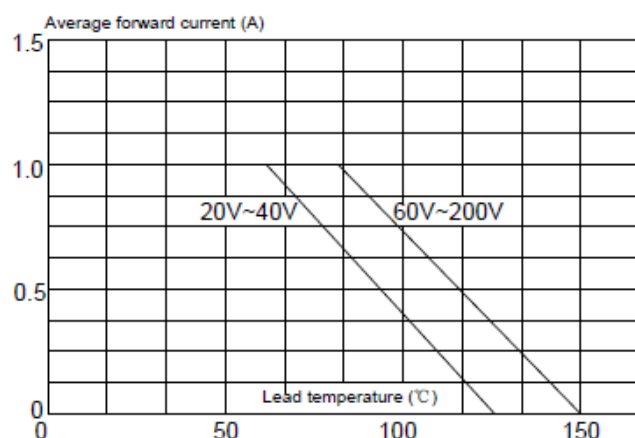
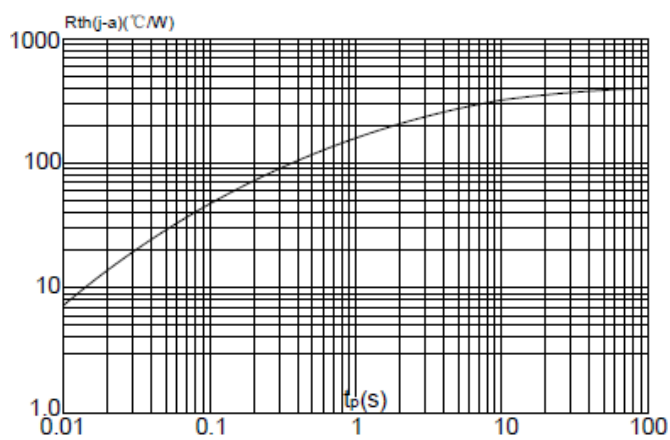
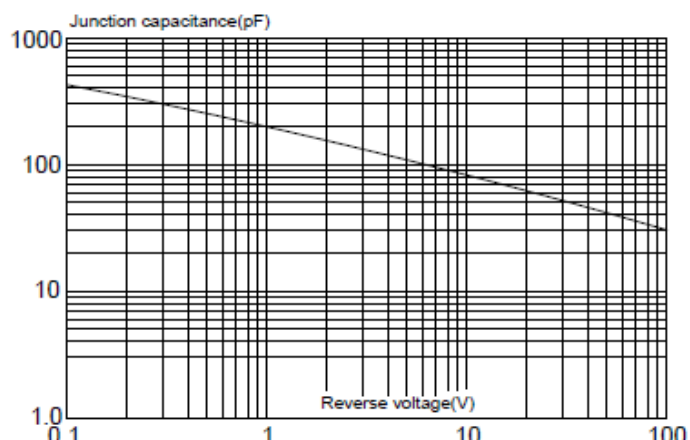
Symbol	Millimeters	Inches
A	1.46±0.05	0.057±0.002
B	2.90±0.05	0.114±0.002
C	1.25±0.05	0.049±0.002
d	ø1.50±0.1	ø0.059±0.004
E	1.75±0.1	0.069±0.004
F	3.50±0.1	0.138±0.004
P0	4.0±0.1	0.157±0.004
P	4.0±0.1	0.157±0.004
P1	2.0±0.1	0.079±0.004
W	8.00 ^{+0.3} _{-0.1}	0.315 ^{+0.012} _{-0.004}
D	ø178.0±2	ø7.008±0.079
D1	54.40±1	2.142±0.039
D2	13.0±1	0.512±0.039
G	R78.0±1	R3.071±0.039
H	R25.60±1	R1.008±0.039
I	R6.50±1	R0.256±0.039
W1	9.50±1	0.374±0.039
W2	12.30±1	0.484±0.039

Packaging description:

SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. The reels are blue in color and made of recyclable plastic.

ORDERING INFORMATION

OUTLINE	Package	Reel Size	Quantity Per Reel
TAPING	SOD-323	7 Inch	3,000 pcs

CHARACTERISTICS CURVE
FIG.1: Typical forward characteristics (25°C)

FIG.2: Typical reverse characteristics

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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