



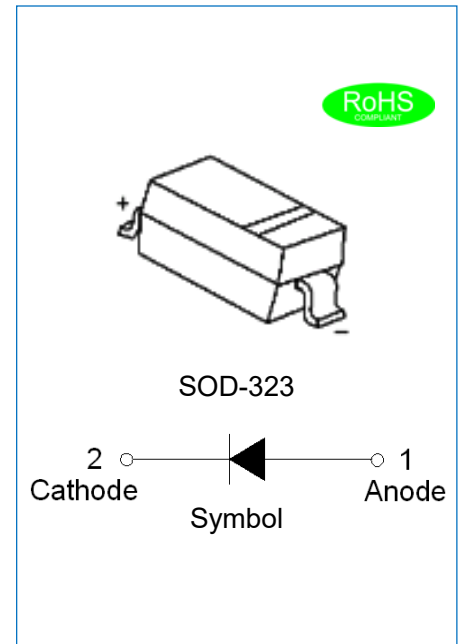
## JSPD140A

### 1A Schottky Barrier Rectifier

Rev.1.3

#### 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-323 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	JSPD140A	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
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
Power dissipation	$P_D$	250	mW
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
Reverse breakdown voltage	$I_R=1mA$ $V_{BR}$	40			V
Forward voltage	$I_F=1A$ $V_F$			0.6	V
	$I_F=3A$			0.9	
Reverse voltage leakage current	$V_R=40V$ $I_R$			10	μA
Junction capacitance	$V_R=4.0V, f=1MHz$ $C_J$			120	pF



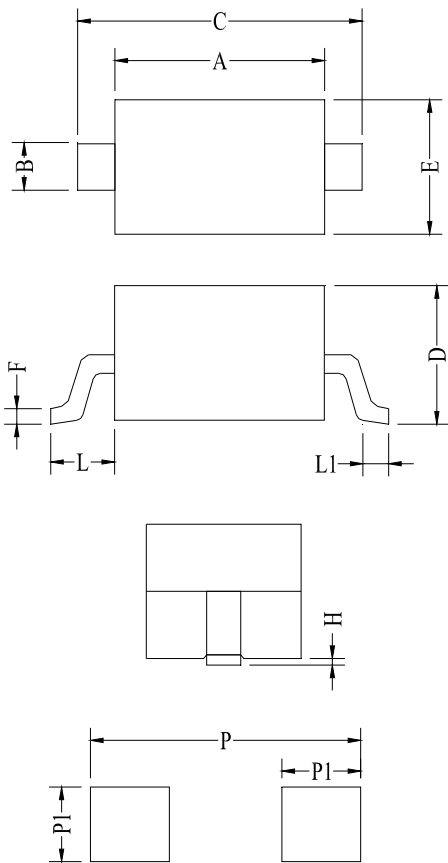
**THERMAL RESISTANCES**

Symbol	Parameter	JSPD140A	Unit
$R_{th(j-a)}$	Thermal resistances from junction to ambient	400	°C/W

**MARKING**

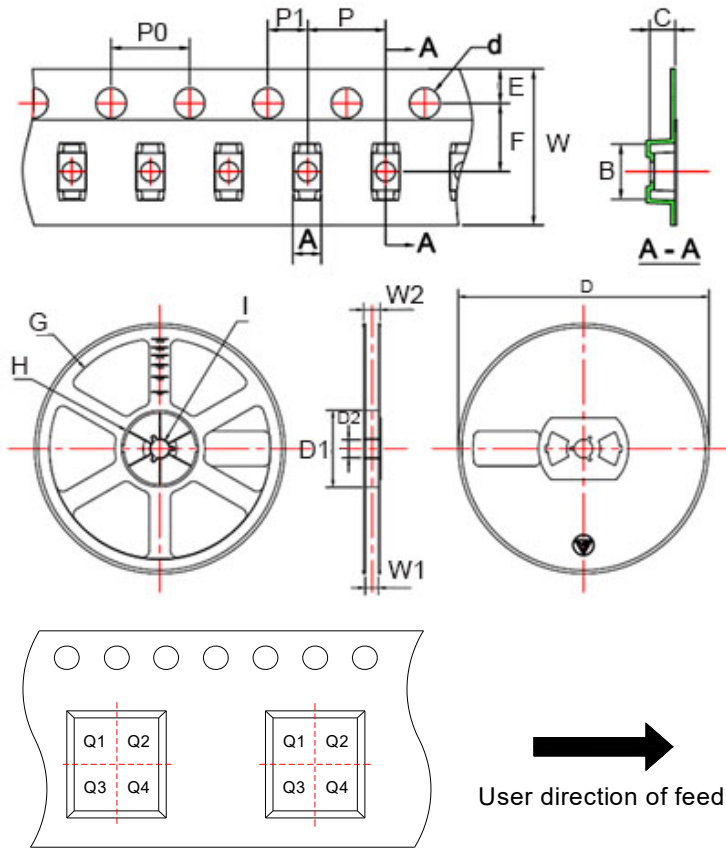
Part Number	Marking Code
JSPD140A	

**PACKAGE MECHANICAL DATA**



**Land Pattern**

Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	1.60	1.70	1.80	0.063	0.067	0.071
B	0.25	0.32	0.40	0.010	0.013	0.016
C	2.30	2.60	2.80	0.091	0.102	0.110
D	0.80	0.95	1.10	0.031	0.037	0.043
E	1.20	1.30	1.40	0.047	0.051	0.055
F	0.08	0.13	0.18	0.003	0.005	0.007
L	0.475REF			0.019REF		
L1	0.25	0.33	0.40	0.010	0.013	0.016
H	0.00	0.06	0.14	0.000	0.002	0.006
P	3.00			0.118		
P1	0.80			0.031		

**TAPE AND REEL INFORMATION-SOD-323**


Pin 1 quadrant: Q1&amp;Q2

**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.

Symbol	Millimeters	Inches
	Typ	Typ
A	1.46	0.057
B	2.90	0.114
C	1.25	0.049
d	ø1.50	ø0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	4.00	0.157
P1	2.00	0.079
W	8.00	0.315
D	ø178.0	ø7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.0	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

**ORDERING INFORMATION**

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



CHARACTERISTICS CURVE

FIG.1: Forward characteristics (25°C)

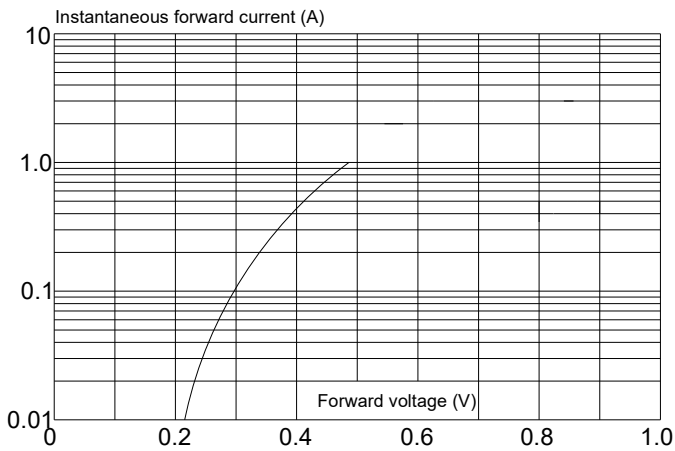


FIG.2: Reverse characteristics

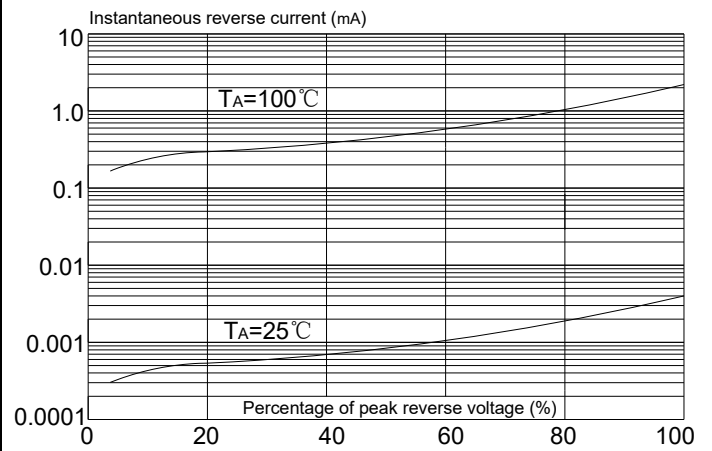


FIG.3: Maximum non-repetitive peak forward surge current

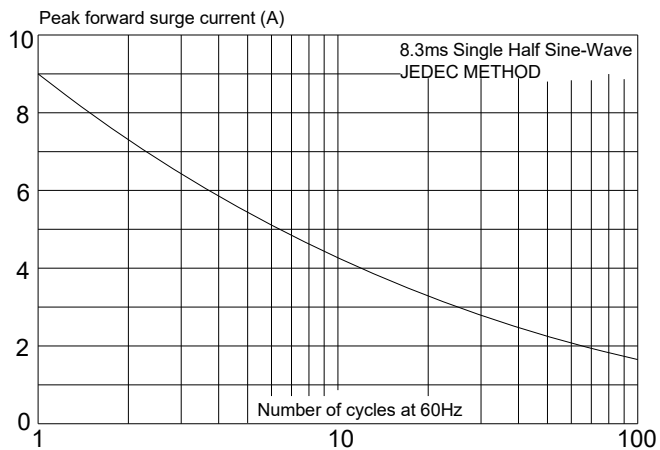


FIG.4: Power derating curve

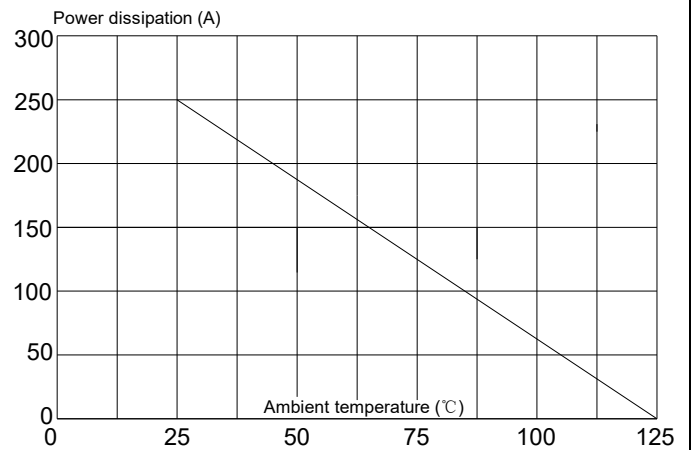


FIG.5: Maximum transient thermal impedance

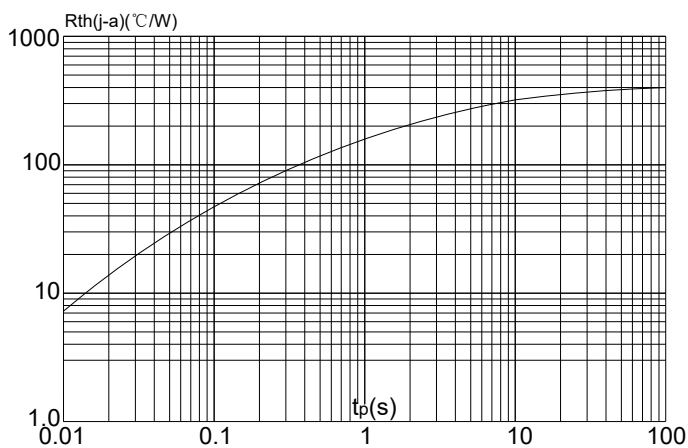
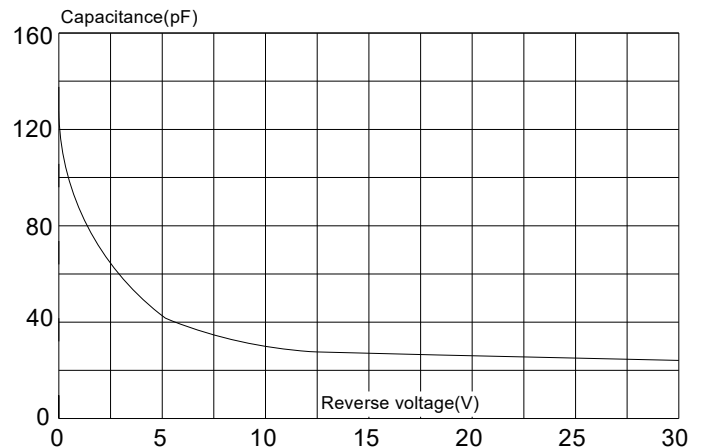


FIG.6: Capacitance characteristics





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