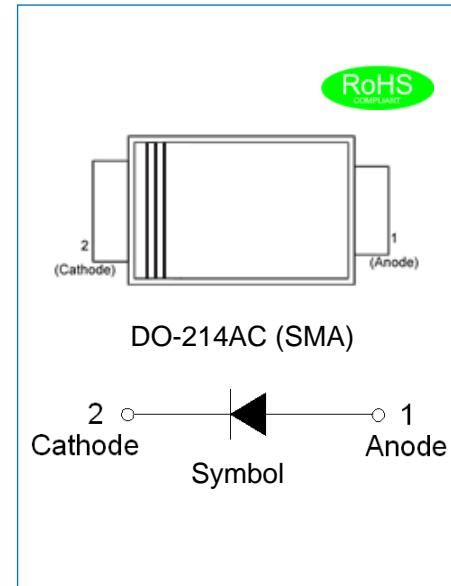


**JSPX140A****1A Schottky Barrier Rectifier**

Rev.1.2

**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: SMA 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	JSPX140A		Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	40		V
Maximum RMS voltage	V <sub>RMS</sub>	28		V
Maximum DC blocking voltage	V <sub>DC</sub>	40		V
Maximum average forward current	I <sub>F(AV)</sub>	1.0		A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30		A
Operating junction temperature range	T <sub>j</sub>	-55 to +125		°C
Storage temperature range	T <sub>stg</sub>	-55 to +150		°C

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

Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> =1A	V <sub>F</sub>		0.55	V
Reverse current at rated DC blocking voltage	T <sub>A</sub> =25°C	I <sub>R</sub>		0.5	mA
	T <sub>A</sub> =100°C			6	
Junction capacitance	V <sub>R</sub> =4.0V, f=1MHz	C <sub>J</sub>	110		pF

## THERMAL RESISTANCES

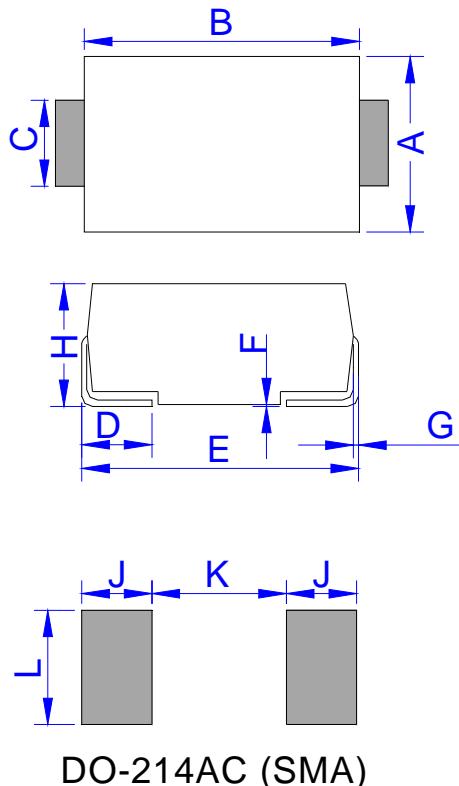
Symbol	Parameter	JSPX140A	Unit
$R_{th(j-a)}$	Thermal resistances from junction to ambient	85	°C/W

## MARKING



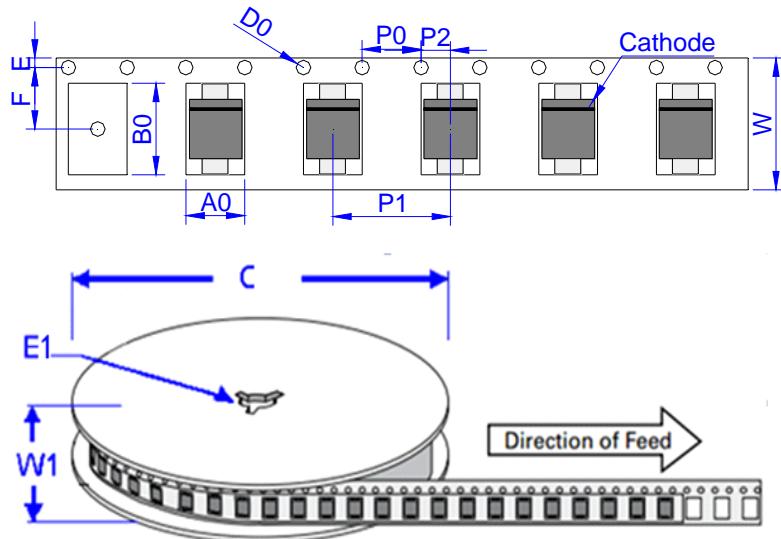
The first '**'	Date code
The second '**'	
The third '**'	
The fourth '**'	Batch code
The fifth '**'	
X	Package: SMA
1	$I_{F(AV)}:1A$
4	$V_{RRM}:40V$

## PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.60	3.00	0.102	0.118
B	4.15	4.65	0.163	0.183
C	1.25	1.65	0.049	0.065
D	0.95	1.52	0.037	0.060
E	4.90	5.30	0.193	0.209
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.00	2.44	0.079	0.096
J	2.00		0.079	
K		2.30		0.091
L	1.80		0.071	

## TAPE AND REEL SPECIFICATION-SMA



Ref.	Dimensions	
	Millimeters	Inches
A0	2.79 ± 0.3	0.110 ± 0.012
B0	5.33 ± 0.3	0.210 ± 0.012
C	330.0	13.0
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	5.5 ± 0.2	0.217 ± 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	12.0 ± 0.2	0.472 ± 0.008
W1	15.7 ± 2.0	0.618 ± 0.079

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.0673	7,500	120,000	330

## CHARACTERISTICS CURVE

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

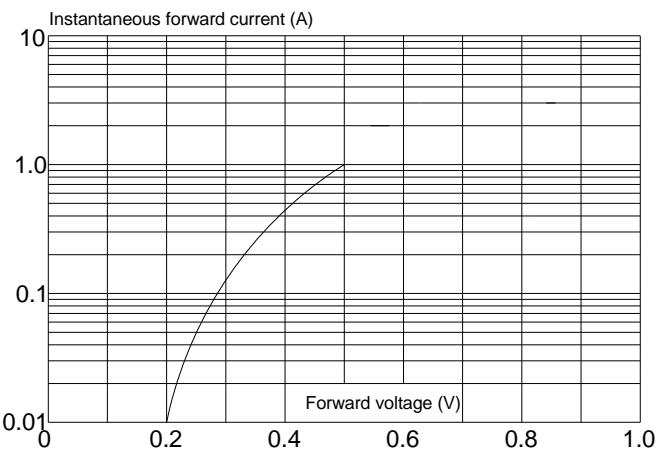
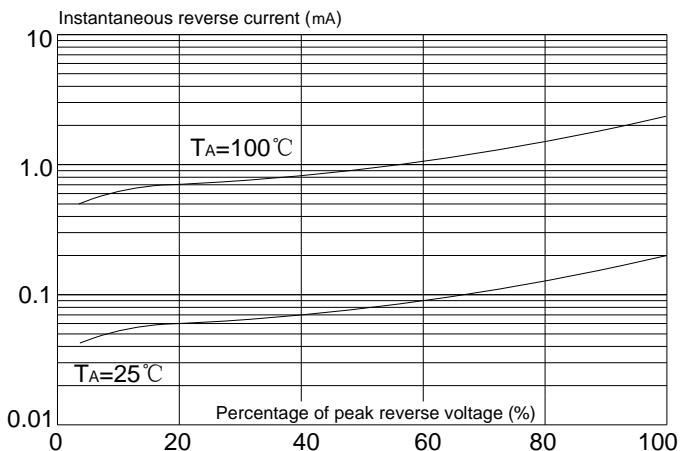


FIG.2: Typical reverse characteristics



## CHARACTERISTICS CURVE

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

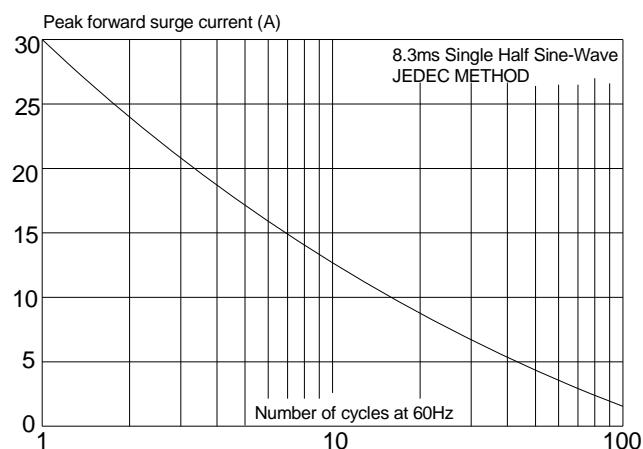


FIG.4: Forward current derating curve

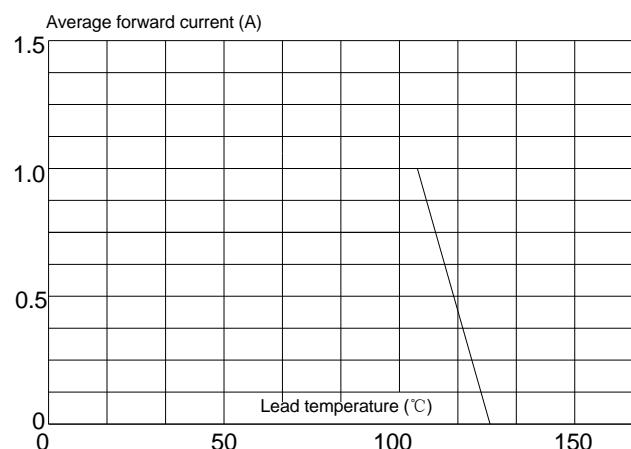


FIG.5: Maximum transient thermal impedance

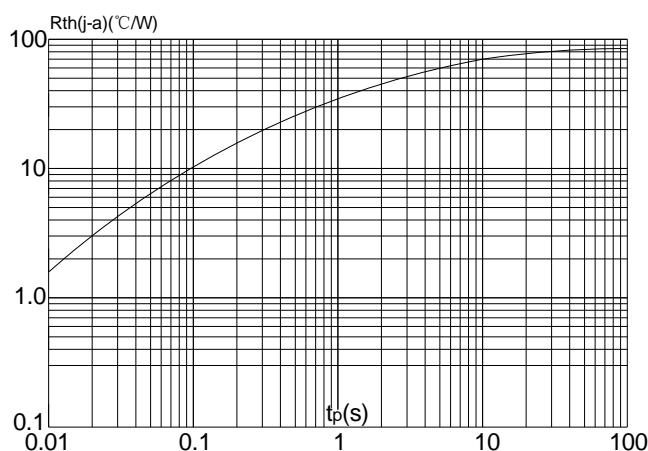
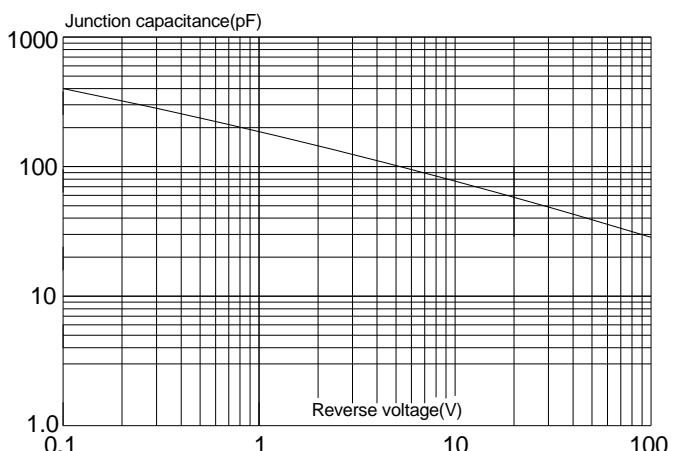


FIG.6: Typical junction capacitance



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