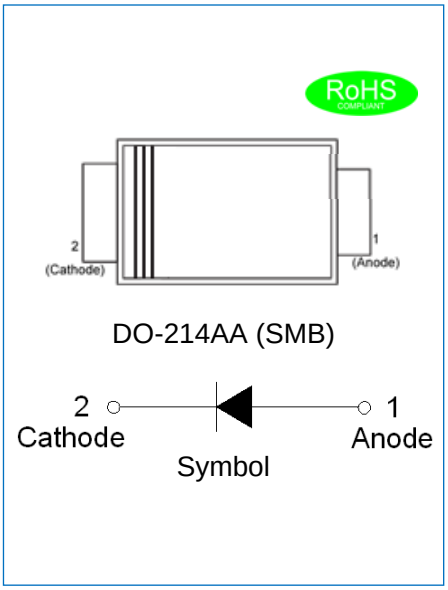
JSPG3100A

3A 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: SMB molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end

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

Parameter	Symbol	JSPG3100A	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward current	$I_{F(AV)}$	3.0	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80	A
Operating junction temperature range	T_j	-55 to +150	℃
Storage temperature range	T_{stg}	-55 to +150	℃

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

Parameter		Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=3A	V_F			0.85	V
Reverse current at rated DC blocking voltage	T_A=25℃	I_R			0.1	mA
	T_A=100℃				8	
Junction capacitance	V_R=4.0V, f=1MHz	C_J		90		pF

THERMAL RESISTANCES

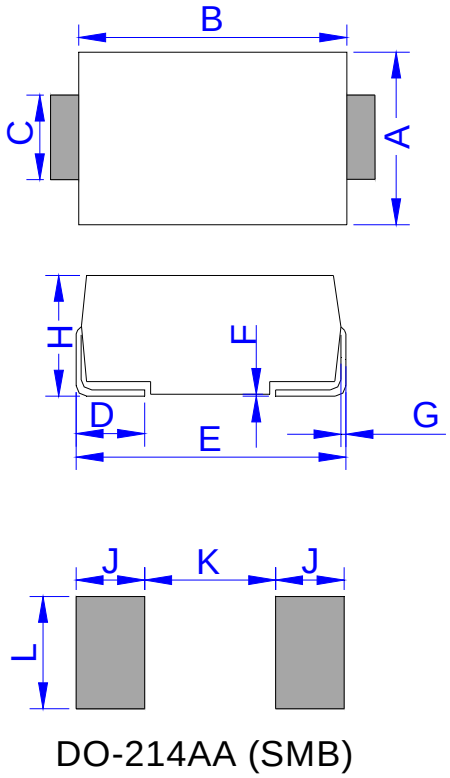
Symbol	Parameter	JSPG3100A	Unit
$R_{th(j-a)}$	Thermal resistance from junction to ambient (note1)	60	℃/W

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

MARKING

The first '*'	Date code
The second '*'	
The third '*'	Batch code
The fourth '*'	
The fifth '*'	
G	Package: SMB
3	$I_{F(AV)}$:3A
10	V_{RRM}:100V

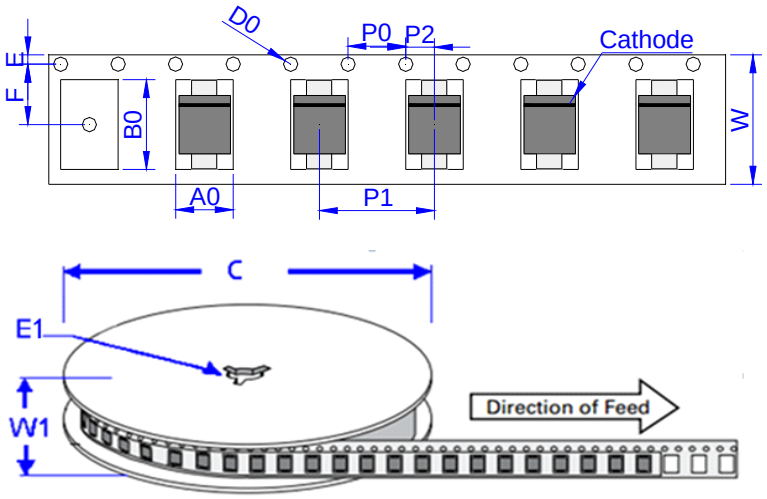
PACKAGE MECHANICAL DATA



DO-214AA (SMB)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.94	0.130	0.155
B	4.30	4.80	0.169	0.189
C	1.90	2.20	0.075	0.087
D	0.95	1.52	0.037	0.060
E	5.20	5.60	0.205	0.220
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.10	2.40	0.083	0.094
J	2.20		0.087	
K		2.60		0.102
L	2.30		0.091	

TAPE AND REEL SPECIFICATION-SMB



Ref.	Dimensions	
	Millimeters	Inches
A0	3.76 ± 0.3	0.148 ± 0.012
B0	5.69± 0.3	0.224 ± 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	8.00 ± 0.2	0.3145 ± 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	0.1	3,000	48,000	330

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics (25℃)

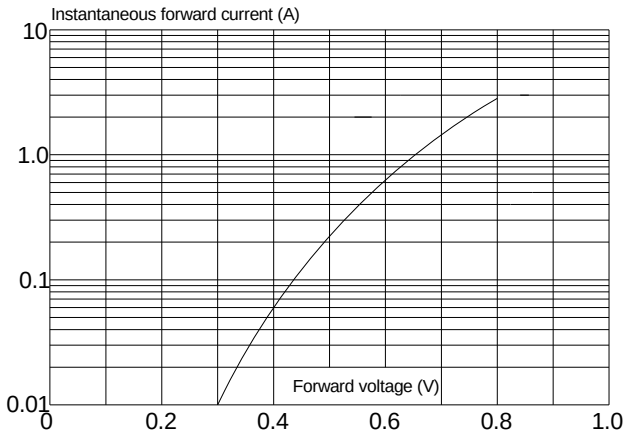
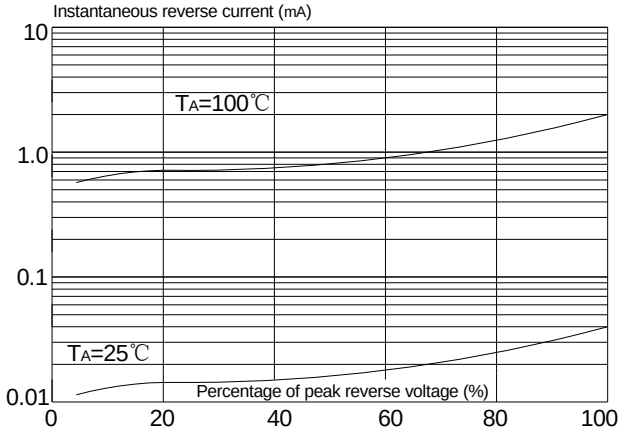


FIG.2: Typical reverse characteristics



CHARACTERITICS CURVE

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

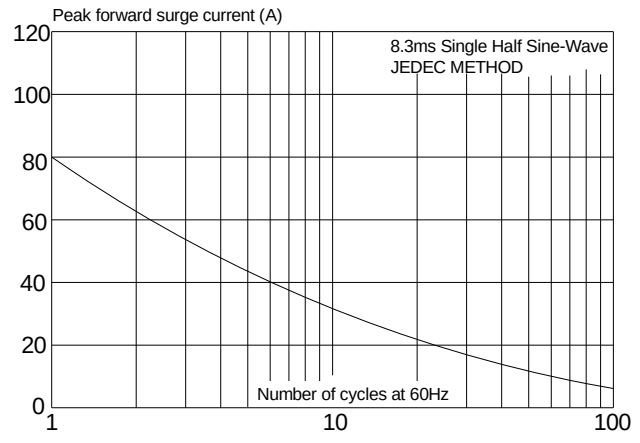


FIG.4: Forward current derating curve

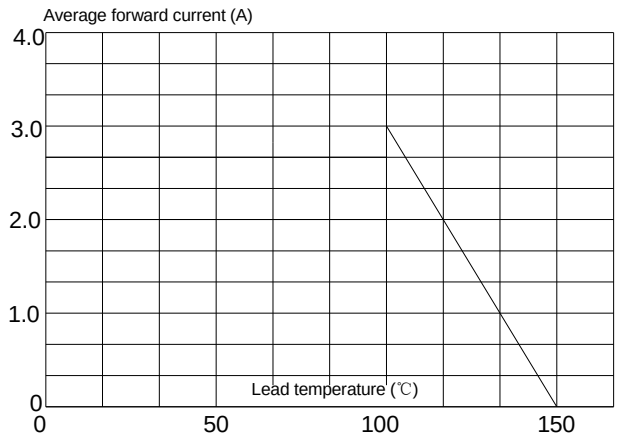


FIG.5: Maximum transient thermal impedance

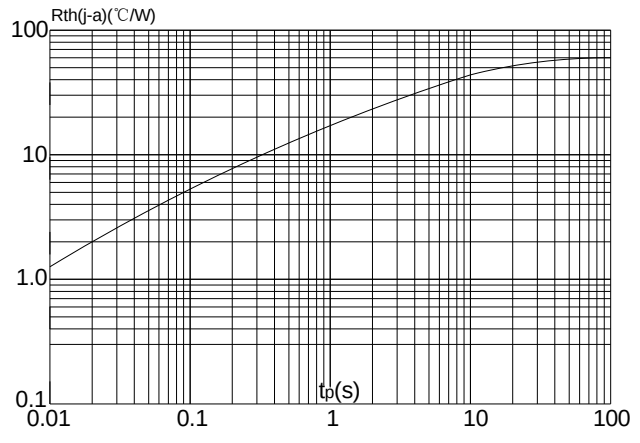


FIG.6: Typical junction capacitance