



Excellent Schottky Barrier Rectifiers



DO-214AC(SMA)

Primary Characteristics

I_F	5	A
V_{RRM}	300	V
I_{FSM}	100	A
V_F	0.97	V
T_J max	150	°C

Features

- High current capability
- High surge current capability
- Low reverse current

Mechanical Data

- Case : DO-214AC(SMA)
- Case Material : Molded Plastic.
UL Flammability Classification Rating 94V-0
- Terminals : Lead free Plating (Tin Finish)
Solderable per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 0.062 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
EBRP5L300A	RoHS Compliant	SMA	5000 / Tape & Reel
EBRP5L300A-H	Halogen Free		
EBRP5L300A-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	EBRP5L300A	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC blocking voltage	V_{DC}	300	V
Maximum average forward rectified current	I_F	5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100	A
Maximum Instantaneous Forward Voltage (NOTE 2) IF=2A @ 25°C IF=5A @ 25°C	V_F	0.77 Typ. 0.97 Max.	V
Maximum DC Reverse Current at Rated DC Blocking Voltage (NOTE 2)	I_R	0.2 5	mA
Typical Junction Capacitance (NOTE1)	C_j	60	pF
Typical Thermal Resistance	$R_{\theta JC}$	40	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Marking Code		P5L300A · 5L300A	

NOTES :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Pulse test : single pulse width \leq 1 ms.



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

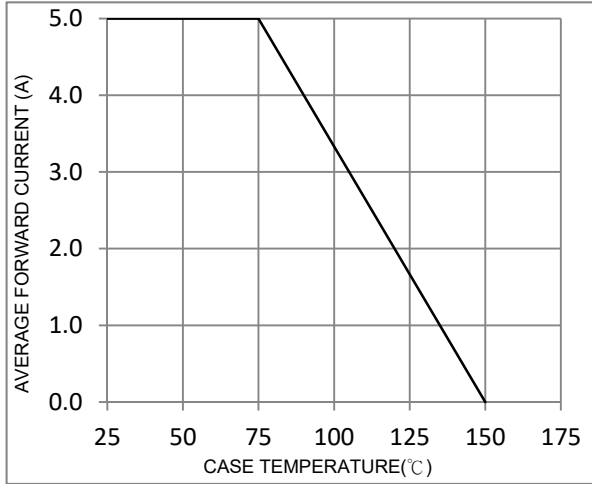


FIG. 2-Typical Forward Characteristics

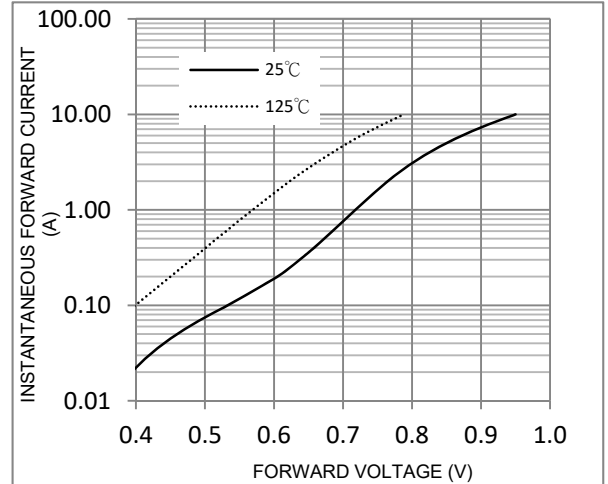


FIG. 3-Maximum Non-Repetitive Forward Surge Current

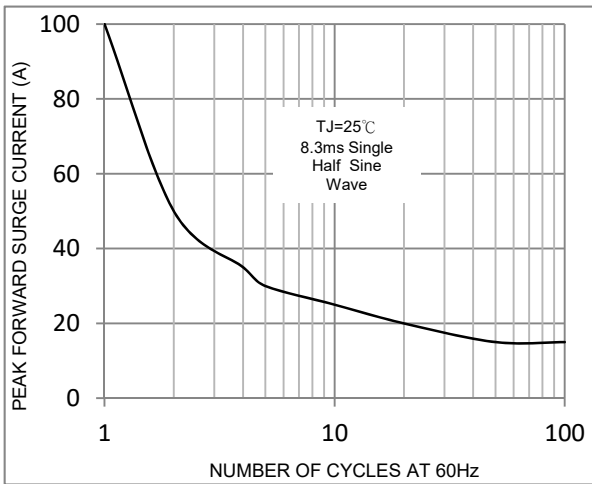


FIG. 4-Typical Reverse Characteristics

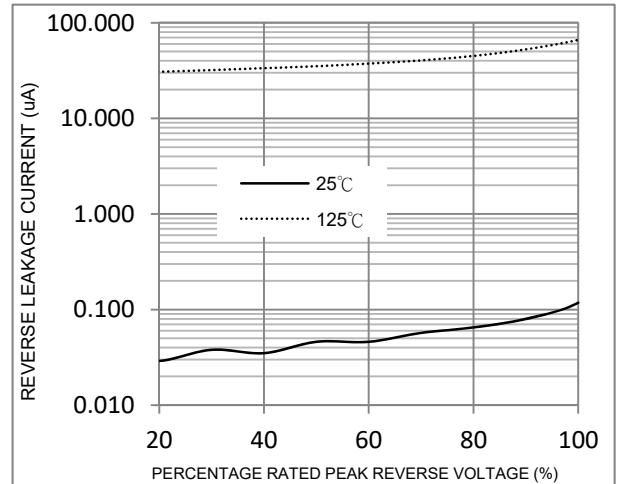
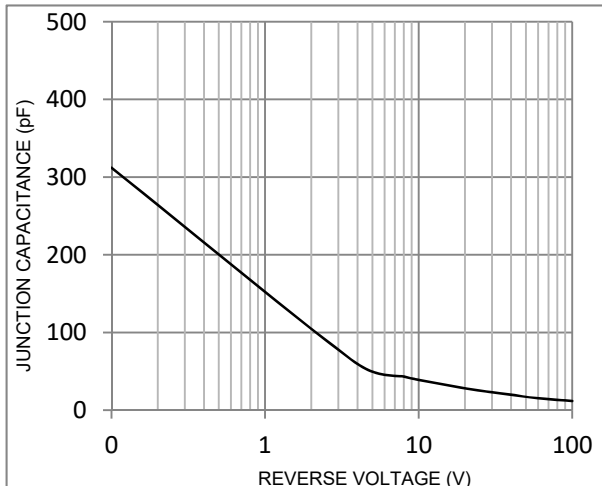


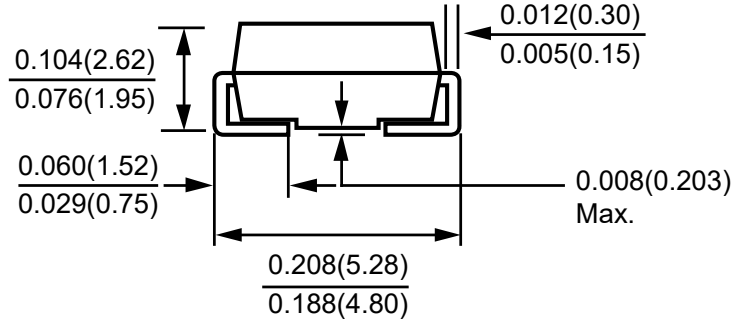
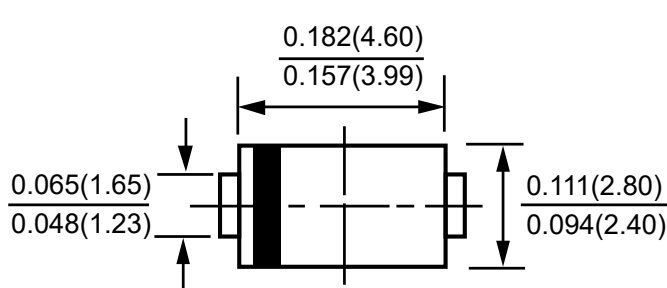
FIG. 5-Typical Junction Capacitance





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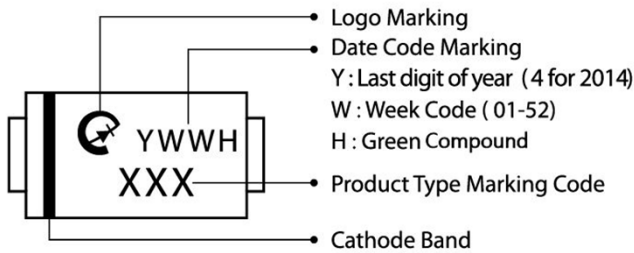
Package Outline Dimensions



DO-214AC(SMA)

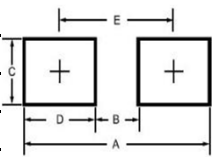
Dimensions in inches and (millimeters)

Marking Information



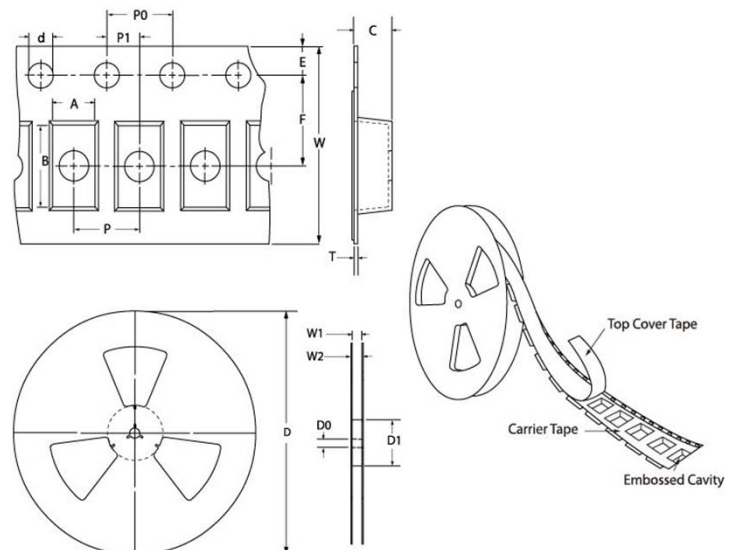
Suggested Pad Layout

Dimension	Outline	SMA (mm) DO-214AC
A		6.50
B		1.50
C		1.70
D		2.50
E		4.00



Tape & Reel Specification

Item	Symbol	SMA(mm) DO-214AC
Carrier width	A	2.9 (max)
Carrier length	B	5.9 (max)
Carrier depth	C	2.66 (max)
Sprocket hole	d	1.50 ± 0.1
Reel outside diameter	D	330 ± 2.0
Feed hole diameter	D0	13.5 ± 1
Reel inner diameter	D1	50 (min.)
Sprocket hole position	E	1.75 ± 0.1
Punch hole position	F	5.5 ± 0.05
Sprocket hole pitch	P	4.0 ± 0.1
Sprocket hole pitch	P0	4.0 ± 0.1
Embossment center	P1	2.0 ± 0.05
Overall tape thickness	T	0.6 (max)
Tape width	W	12.0 ± 0.3
Reel width	W2	18.4 (max)
Reel width	W1	14.4 (max)





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