



**P5L300B**



## Excellent Schottky Barrier Rectifiers



**DO-214AA(SMB)**

Primary Characteristics		
$I_F$	5	A
$V_{RRM}$	300	V
$I_{FSM}$	100	A
$V_F$	0.92	V
$T_J \text{ max}$	150	°C

Features
<ul style="list-style-type: none"> <li>• High current capability</li> <li>• High surge current capability</li> <li>• Low reverse current</li> <li>• Component in accordance to RoHS 2002/95/EC</li> </ul>

Mechanical Data
• Cases: DO-214AA(SMB)
• 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: 0.095 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
P5L300B	General	SMB	3000 / Tape & Reel
P5L300B-H	Halogen Free		
P5L300B-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	P5L300B	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 IF=2A @ 25°C IF=5A @ 25°C	$V_F$	0.77 Typ. 0.92 Max.	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C	$I_R$	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		P5L300B、5L300B	

NOTES:

1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



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## Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

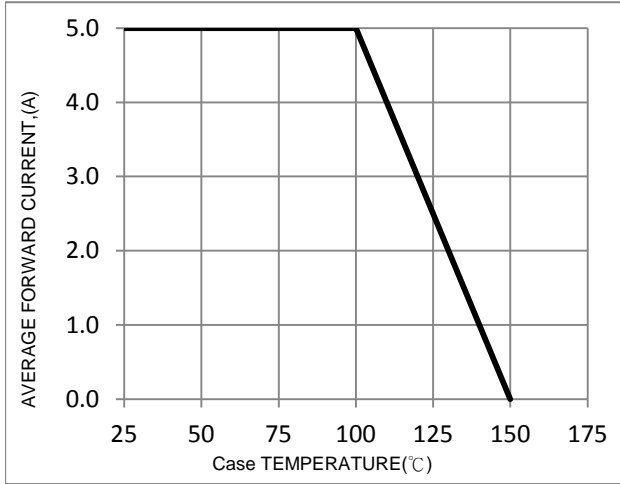


FIG. 2-Typical Forward Characteristics

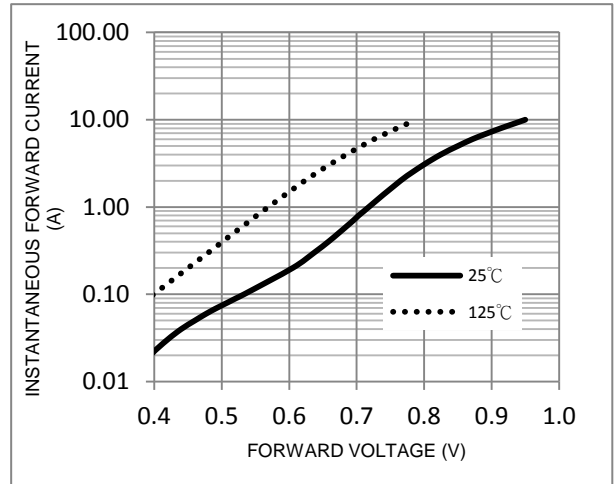


FIG. 3-Maximum Non-Repetitive Forward Surge Current

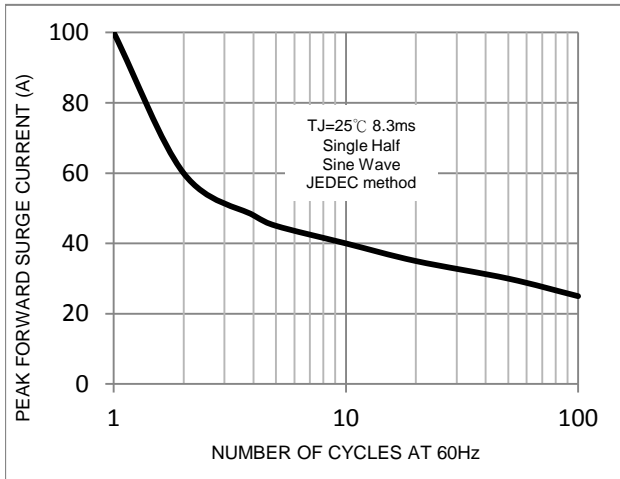


FIG. 4-Typical Reverse Characteristics

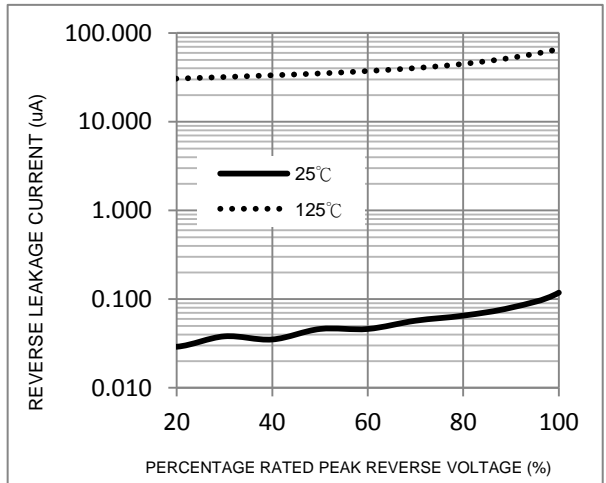
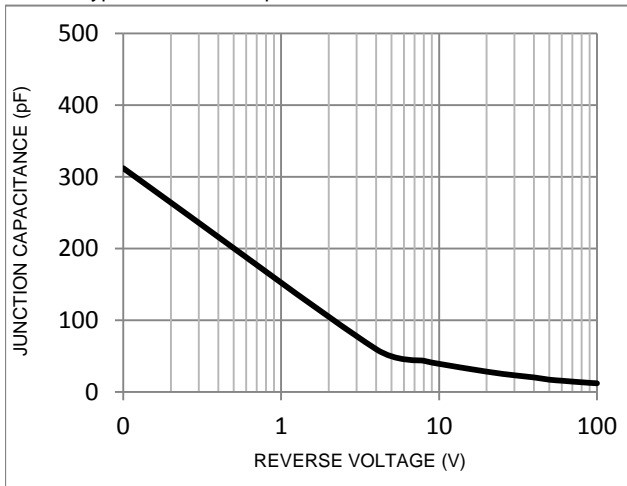
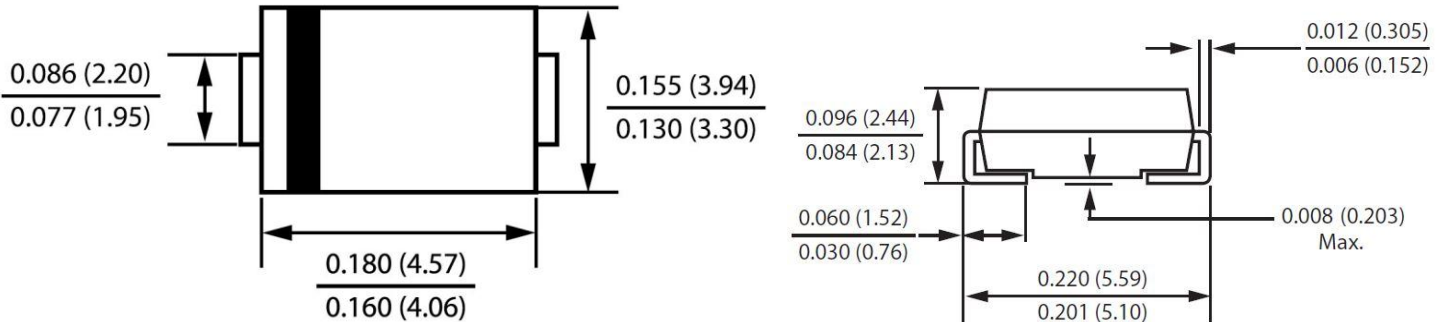


FIG. 5-Typical Junction Capacitance



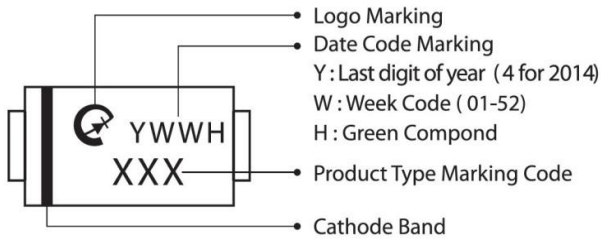
### Package Outline Dimensions



### DO-214AA(SMB)

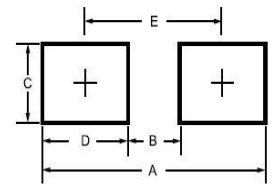
Dimensions in inches and (millimeters)

### Marking Information



### Suggested Pad Layout

Outline Dimension	SMB (DO-214AA)
A	6.80
B	1.80
C	2.30
D	2.50
E	4.30



### Tape & Reel Specification

ITEM	SYMBOL	SMB(mm) DO-214AA
Carrier width	A	4.0(max)
Carrier length	B	5.9(max)
Carrier depth	C	3.0(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	8.0±0.1
Sprocket hole pitch	Po	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)

