



# S2A thru S2Y



## General Purpose Rectifiers Glass Passivation Junction



**DO-214AA(SMB)**

Primary Characteristics		
$I_F$	2	A
$V_{RRM}$	50~2000	V
$I_{FSM}$	60	A
$V_F$	1.1、1.2、1.3	V
$T_J$ max	175	°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
S2x	General	SMB	3000 / Tape & Reel
S2x-H	Halogen Free		
S2x-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)														
PARAMETER	SYMBOL	S2A	S2B	S2D	S2G	S2J	S2K	S2M	S2T	S2W	S2X	S2Y	UNIT	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	1300	1600	1800	2000	V	
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	910	1120	1260	1400	V	
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	1300	1600	1800	2000	V	
Maximum average forward rectified current	$I_F$	2											A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	60											A	
Maximum Instantaneous Forward Voltage IF=2A @ 25°C	$V_F$	1.1								1.2		1.3		V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	5								100				uA
Typical Junction Capacitance(NOTE1)	$C_j$	10												pF
Typical Thermal Resistance	$R_{\theta JC}$	40												°C/W
Operating Temperature Range	$T_J$	-55 to +175											°C	
Storage Temperature Range	$T_{STG}$	-55 to +175											°C	
Marking Code		S2A	S2B	S2D	S2G	S2J	S2K	S2M	S2T	S2W	S2X	S2Y		

NOTES:

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



## General Purpose Rectifiers Glass Passivation Junction

### Rating and Characteristics Curvers

FIG. 1-Typical Forward Current Derating Curve

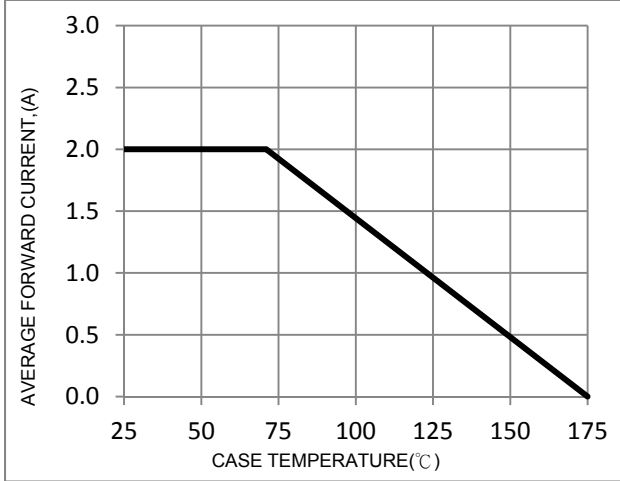


FIG. 2-Typical Forward Characteristics

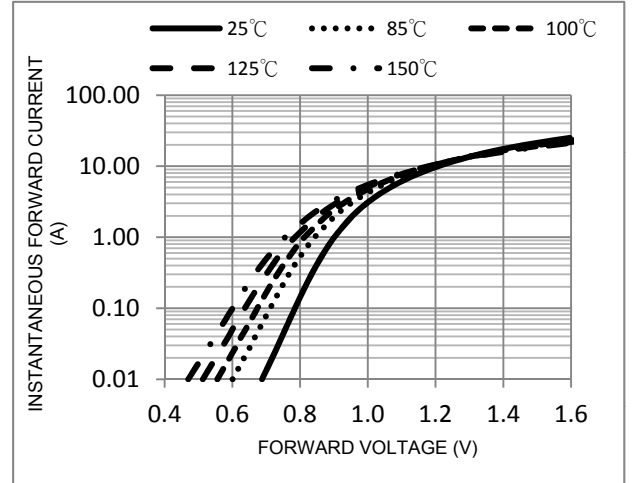


FIG. 3-Maximum Non-Repetitive Forward Surge Current

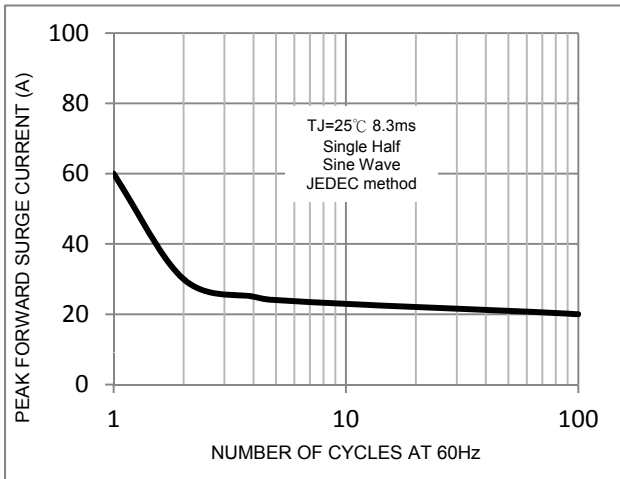


FIG. 4-Typical Reverse Characteristics

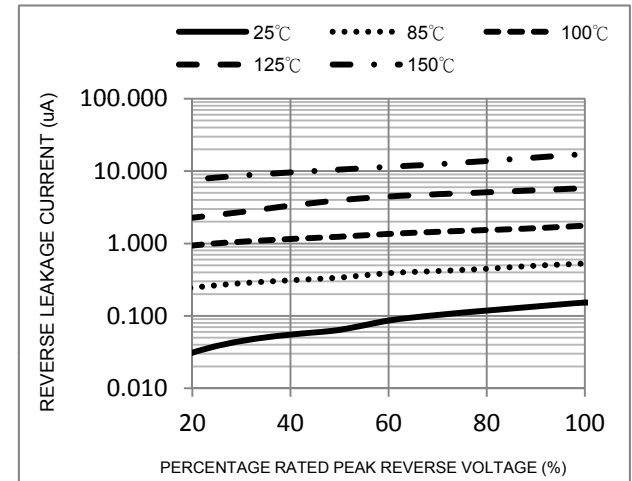
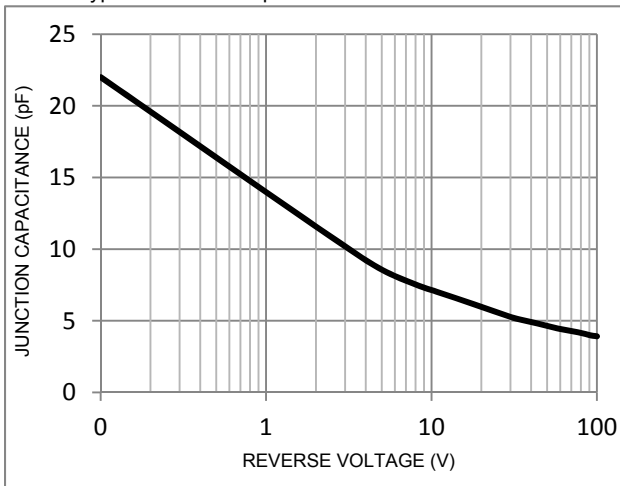


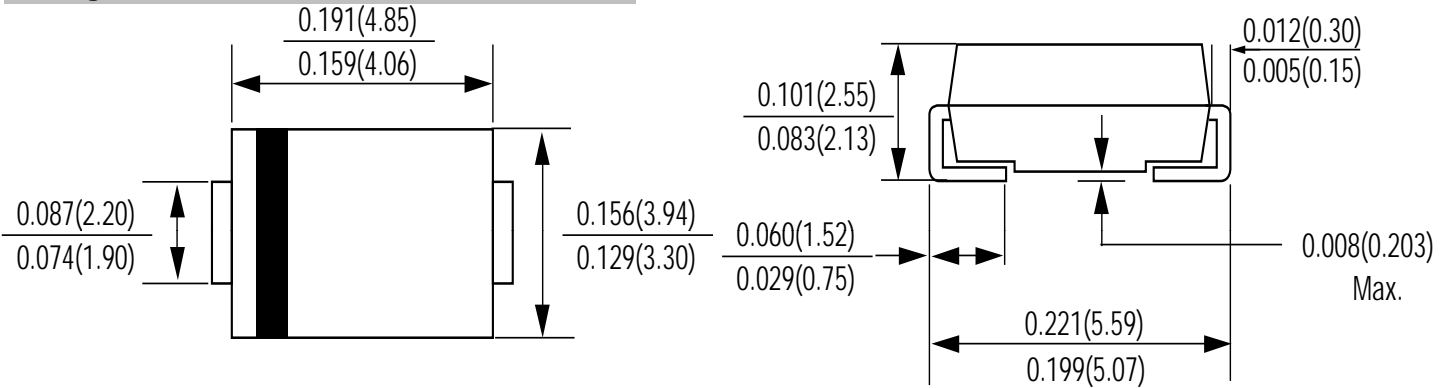
FIG. 5-Typical Junction Capacitance





General Purpose Rectifiers  
Glass Passivation Junction

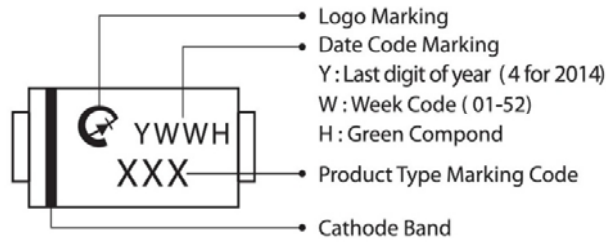
Package Outline Dimensions



DO-214AA(SMB)

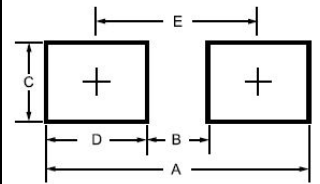
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

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



Tap & 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)

