



# S3A thru S3T



## General Purpose Rectifiers Glass Passivation Junction



DO-214AB(SMC)

Primary Characteristics		
$I_F$	3	A
$V_{RRM}$	1000	V
$I_{FSM}$	100	A
$V_F$	1.15	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
• Case: DO-214AB (SMC)
• 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: 0.231 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
S3x	General	SMC	3000 / Tape & Reel
S3x-H	Halogen Free		
S3x-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)										
PARAMETER	SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	S3T	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	1300	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	910	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	1300	V
Maximum average forward rectified current	$I_F$	3.0								A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100.0								A
Maximum Instantaneous Forward Voltage $I_F=3A @ 25°C$	$V_F$	1.15								V
Maximum DC Reverse Current @ $T_A=25°C$ at Rated DC Blocking Voltage @ $T_A=100°C$	$I_R$	5 50								uA
Typical Junction Capacitance(NOTE1)	$C_j$	20								pF
Typical Thermal Resistance	$R_{θJC}$	20								°C/W
Operating Temperature Range	$T_J$	-55 to +175								°C
Storage Temperature Range	$T_{STG}$	-55 to +175								°C
Marking Code		S3A	S3B	S3D	S3G	S3J	S3K	S3M	S3T	

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



## General Purpose Rectifiers Glass Passivation Junction

### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

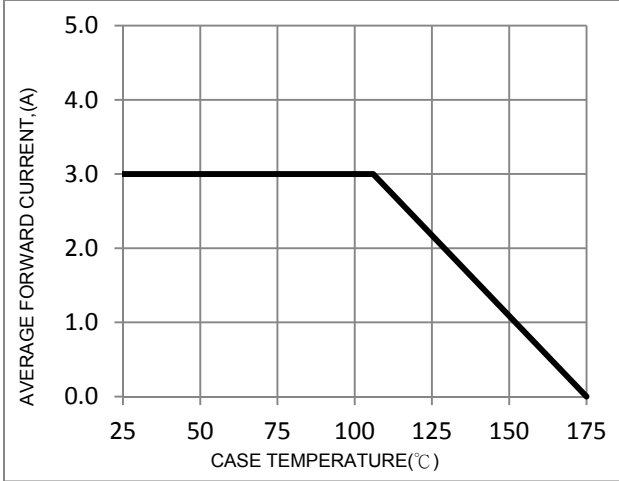


FIG. 2-Typical Forward Characteristics

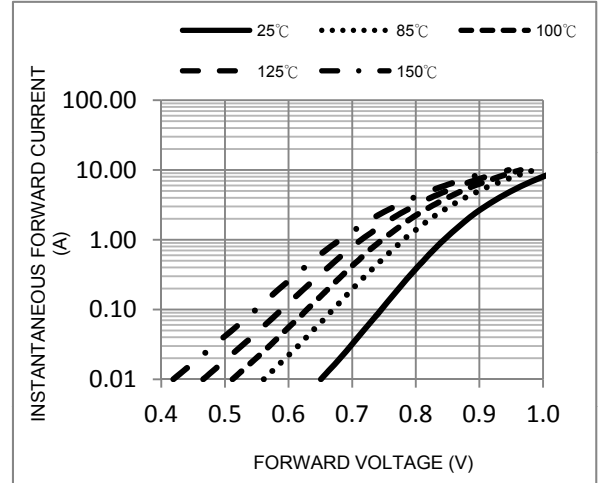


FIG. 3-Maximum Non-Repetitive Forward Surge Current

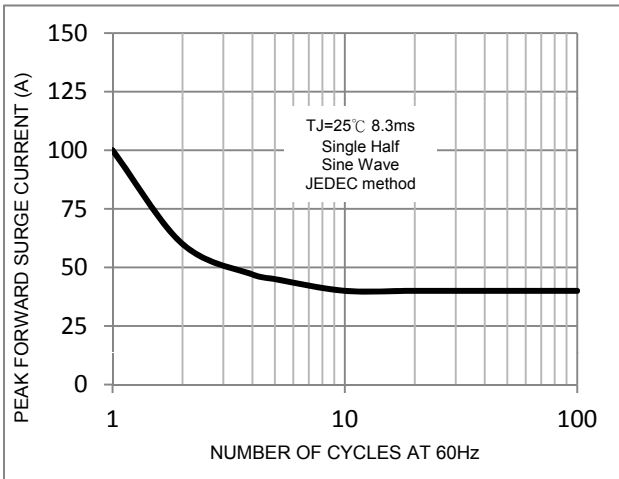


FIG. 4-Typical Reverse Characteristics

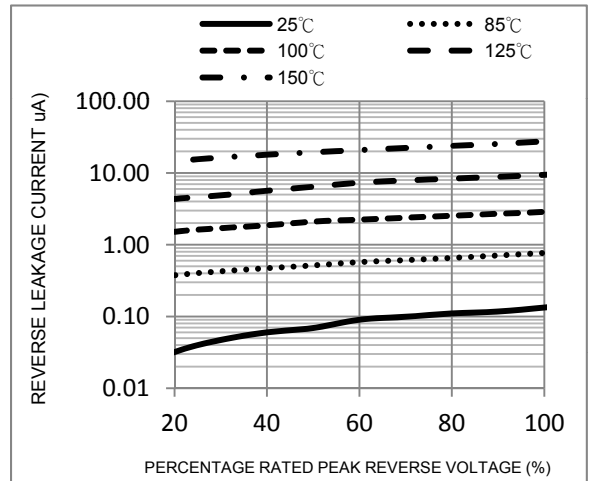
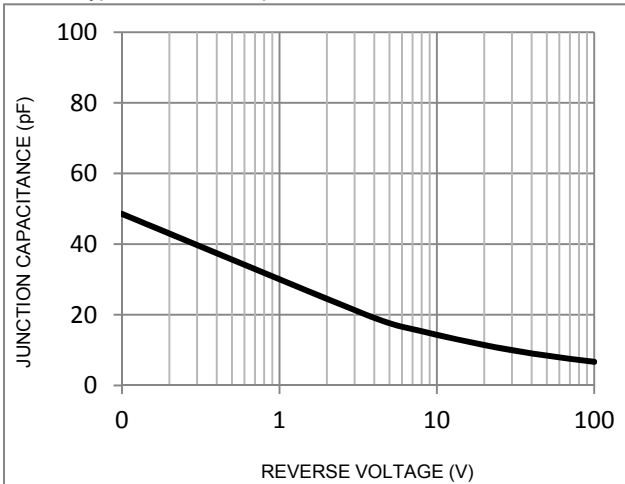


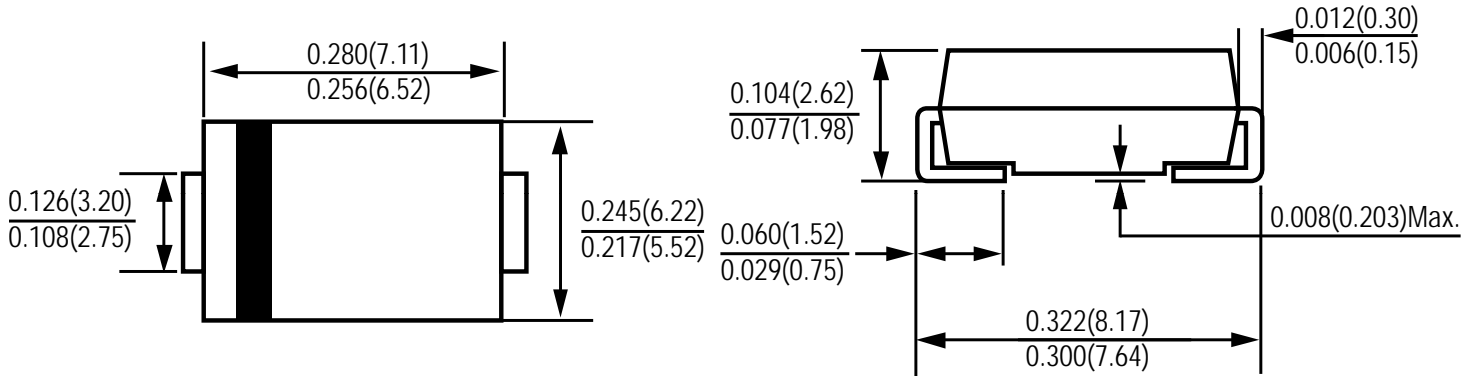
FIG. 5-Typical Junction Capacitance





General Purpose Rectifiers  
Glass Passivation Junction

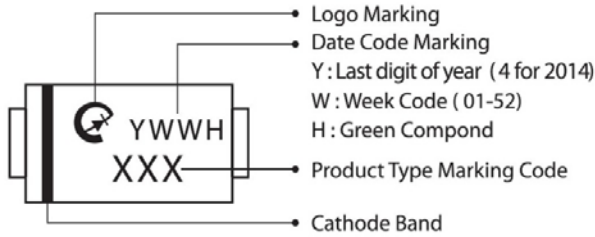
Package Outline Dimensions



DO-214AB(SMC)

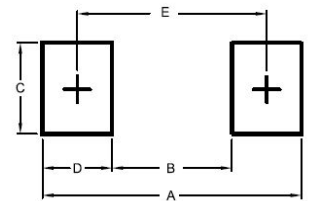
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

Dimension	Outline	SMC (DO-214AB)
A		9.40
B		4.40
C		3.30
D		2.50
E		6.80



Tap & Reel Specification

ITEM	SYMBOL	SMC (mm)	
		DO-214AB	
Carrier width	A	6.3(max)	
Carrier length	B	8.6(max)	
Carrier depth	C	2.9(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	7.5±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	16.0±0.3	
Reel width	W2	22.4 (max)	
Reel width	W1	18.4 (max)	

