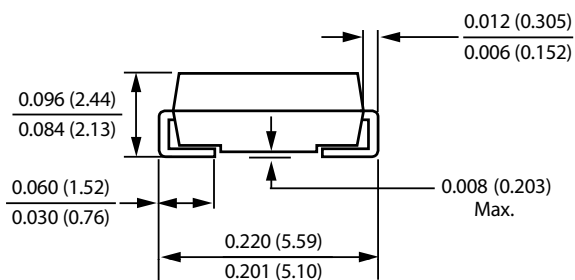
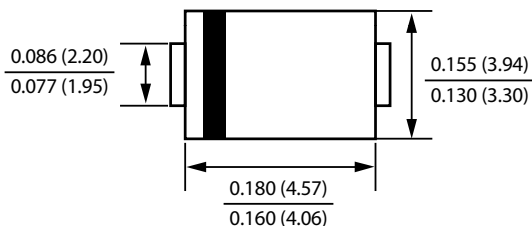


General Purpose Rectifiers Glass Passivation Junction



DO-214AA(SMB)

Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
S1xB	General
S1xB-H	Halogen Free
S1xB-Q	Automotive

PRIMARY CHARACTERISTICS

I_F	1A
V_{RRM}	50~1600V
I_{FSM}	30A
V_F	1.1 , 1.2 V
$T_J \text{ max}$	150°C

Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

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)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	S1AB	S1BB	S1DB	S1GB	S1JB	S1KB	S1MB	S1TB	S1WB	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1300	1600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	910	1120	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1001	1002	V
Maximum average forward rectified current	I_F	1.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0									A
Maximum Instantaneous Forward Voltage $I_F=1A @ 25^\circ C$	V_F	1.1								1.2	V
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	I_R	5 100									uA
Typical Junction Capacitance(NOTE1)	C_j	50									pF
Typical Thermal Resistance	$R_{\theta Ja}$	100									°C/W
Operating Temperature Range	T_J	-55 to +150									°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

NOTES:

- 1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
- 2.Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.

General Purpose Rectifiers Glass Passivation Junction

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

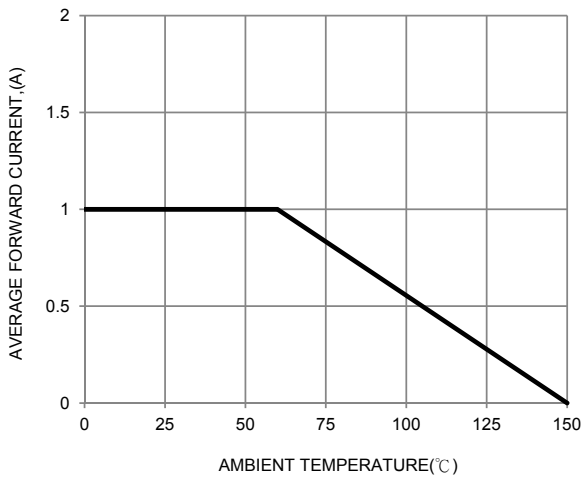


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

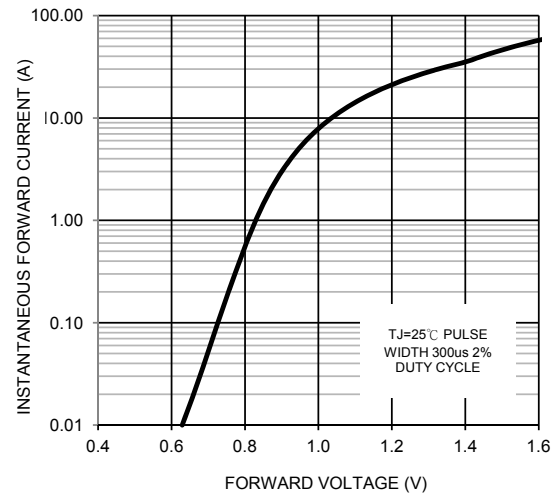


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

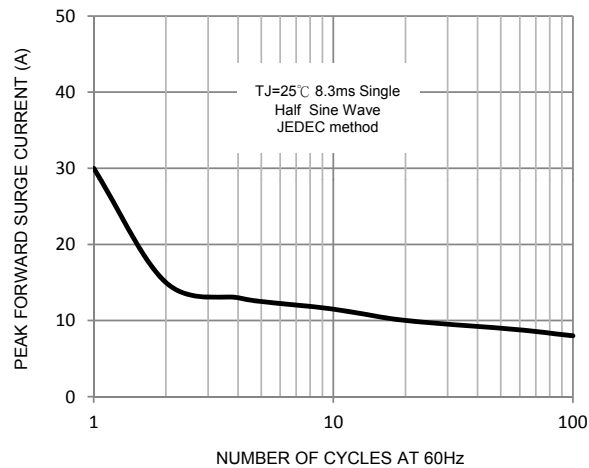


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

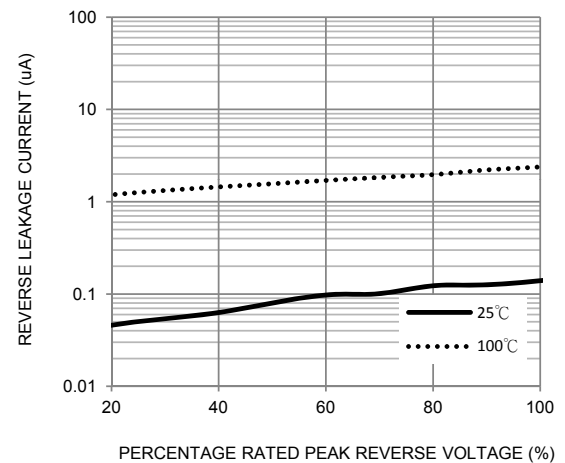


FIG. 5-TYPICAL JUNCTION CAPACITANCE

