

# Silicon Rectifier

## 2A 50~1000V DO-214AA SMB

S2-B Series

MERITEK

### FEATURE

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Low Profile Package
- Built in Strain Relief
- Application: Rectification, Reverse Polarity Protection, Freewheeling



### MECHANICAL DATA

- Case: DO-214AA (SMB), Molded Epoxy Meets UL 94V-0
- Terminals: Solder Plated, Solderable Per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTIC

Parameter	Symbol	S2AB	S2BB	S2DB	S2GB	S2JB	S2KB	S2MB	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on Rate Load	$I_{FSM}$	60.0							A
Maximum Forward Voltage at $I_F = 2.0A$	$V_F$	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	$V_R = V_{RRM}, T_A = 25^\circ C$							$\mu A$
		$V_R = V_{RRM}, T_A = 100^\circ C$							
Thermal Resistance from junction to ambient	$R_{\theta JA}$	50							$^\circ C/W$
Diode Junction Capacitance	$C_J$	$V_R = 4V, f = 1MHz$							pF
Operating Junction Temperature Range	$T_J$	-55 ~ +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 ~ +150							$^\circ C$

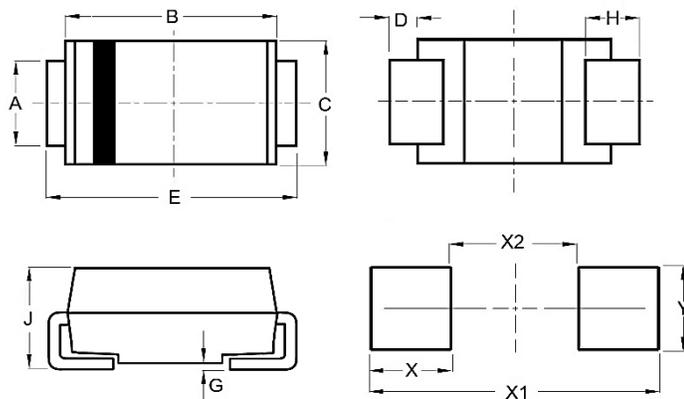
Notes:

1.  $T_A = 25^\circ C$  unless otherwise specified

2. Thermal resistance from junction to lead mounted on P.C.B. with 0.2"x0.2" (5.0x5.0mm) copper pad areas.

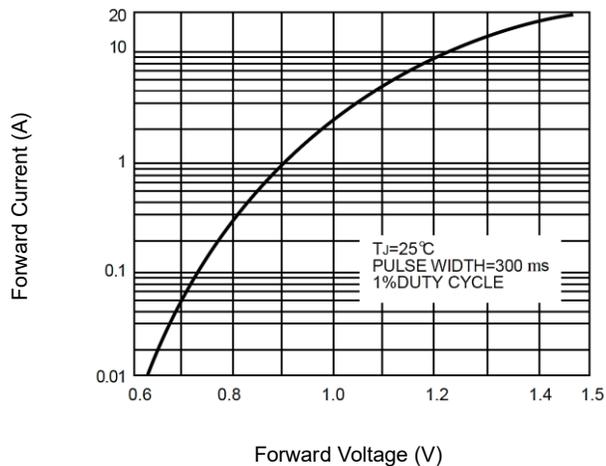
### DIMENSIONS

Item	Min. (mm)	Max. (mm)
A	1.910	2.200
B	4.020	4.850
C	3.260	3.940
D	0.152	0.305
E	5.080	5.590
G	0.000	0.203
H	0.760	1.520
J	2.110	2.440
X	2.070	
X1	5.800	
X2	1.660	
Y	2.060	

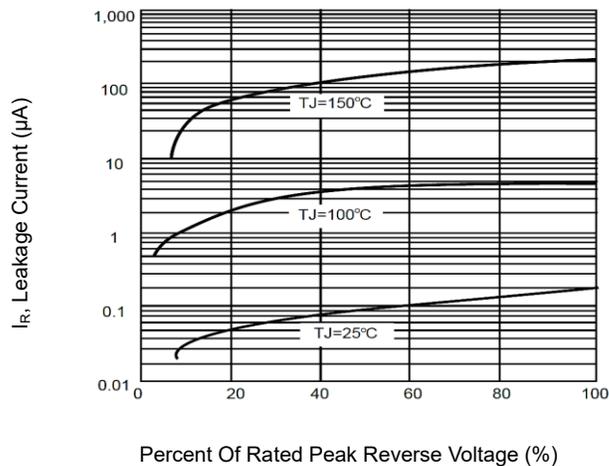


### CHARACTERISTIC CURVES

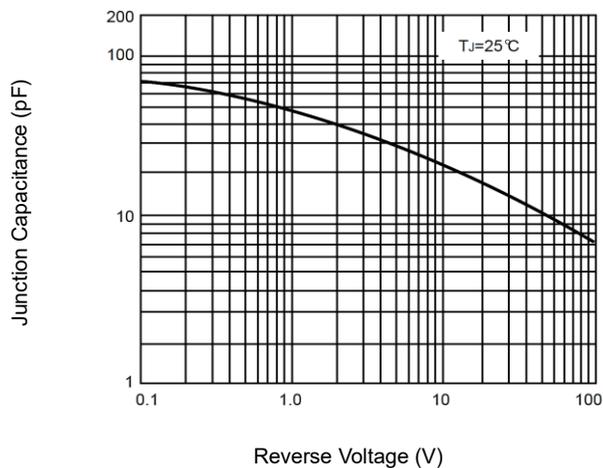
**Typical Forward Characteristics**



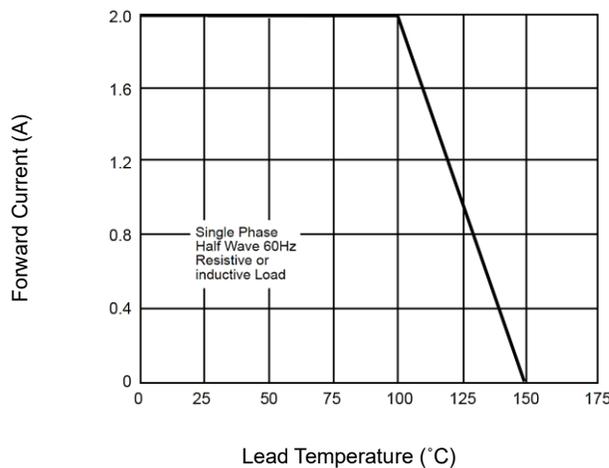
**Typical Reverse Characteristics**



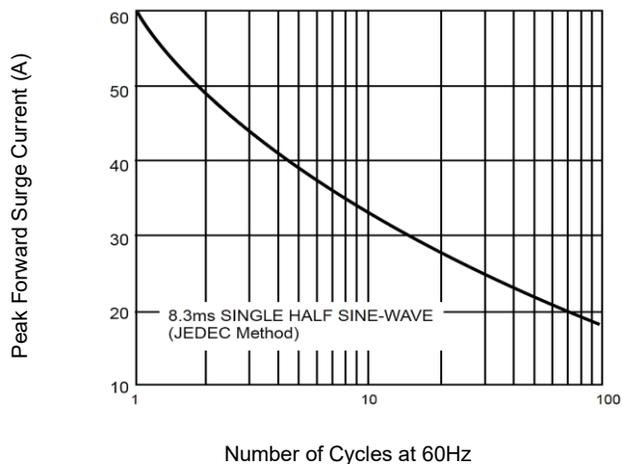
**Typical Junction Capacitance**



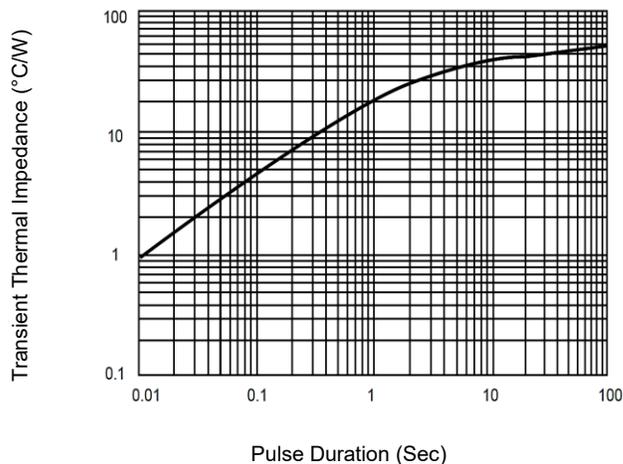
**Forward Current Derating Curve**



**Maximum Non-Repetitive Forward Surge Current**



**Typical Transient Thermal Impedance**



\*Specifications subject to change without notice.