GOOD-ARK
SEMICONDUCTOR

SK27 thru SK2B

Surface Mount Schottky Rectifiers
Reverse Voltage 70-100V Forward Current 2A

Features

- Low forward voltage drop
- High junction temperature
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has underwriters laboratory flammability classification 94V-0
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 qualified

RoHS COMPLIANT



Package: DO-214AA (SMB)

Applications

For use in low voltage, high frequency inverters, free wheeling and polarity protection applications.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	SK27	SK28	SK29	SK2B	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	70	80	90	100	V
Maximum RMS Voltage	V_{RMS}	42	56	63	70	V
Maximum DC Blocking Voltage	V_{DC}	70	80	90	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0				A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	50				A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150				°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Value	Unit
Maximum Instantaneous Forward Voltage	I_F=2A	V_F	0.79	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	30	μA
	T_A=125°C		2000	
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	200	pF

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance[1]	$R_{\theta JA}$	75	°C/W
	$R_{\theta JC}$	30	
	$R_{\theta JI}$	15	

Note:
1. Thermal resistance from junction to lead, mounted on PCB with 8.0×8.0mm copper pads.

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Ratings and Characteristics Curves (T_A=25°C unless otherwise noted)

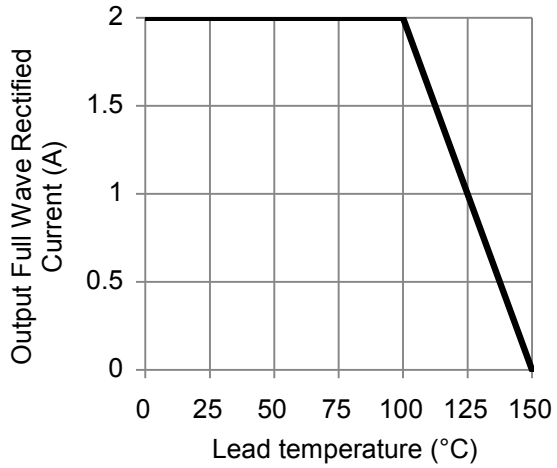


Figure 1. Forward Current Derating Curve

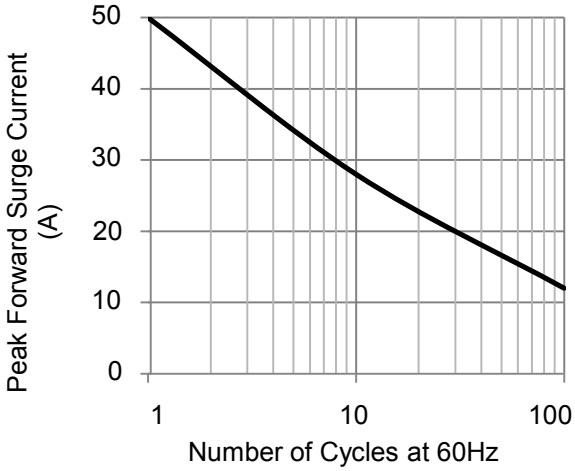


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

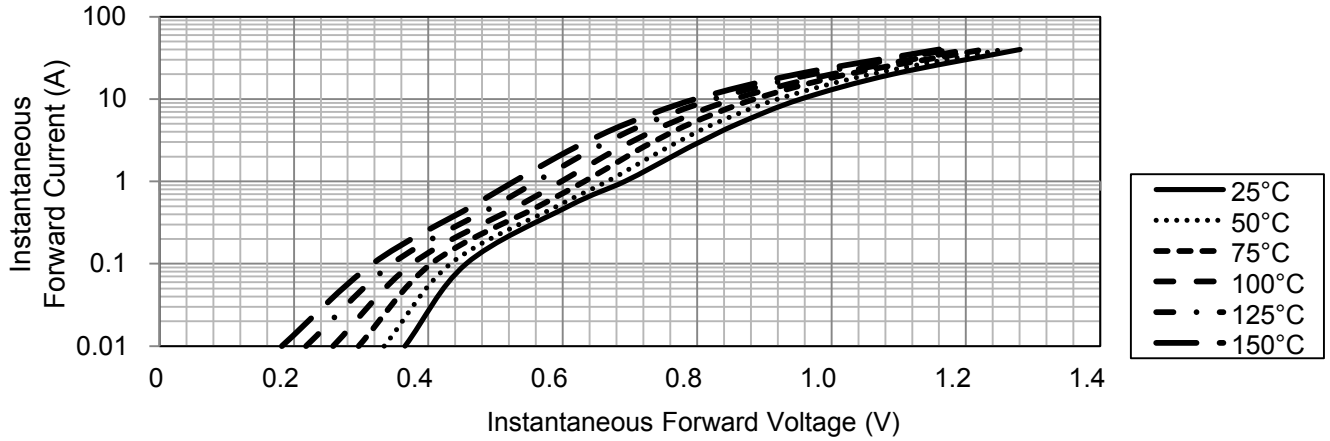


Figure 3. Typical Instantaneous Forward Characteristics

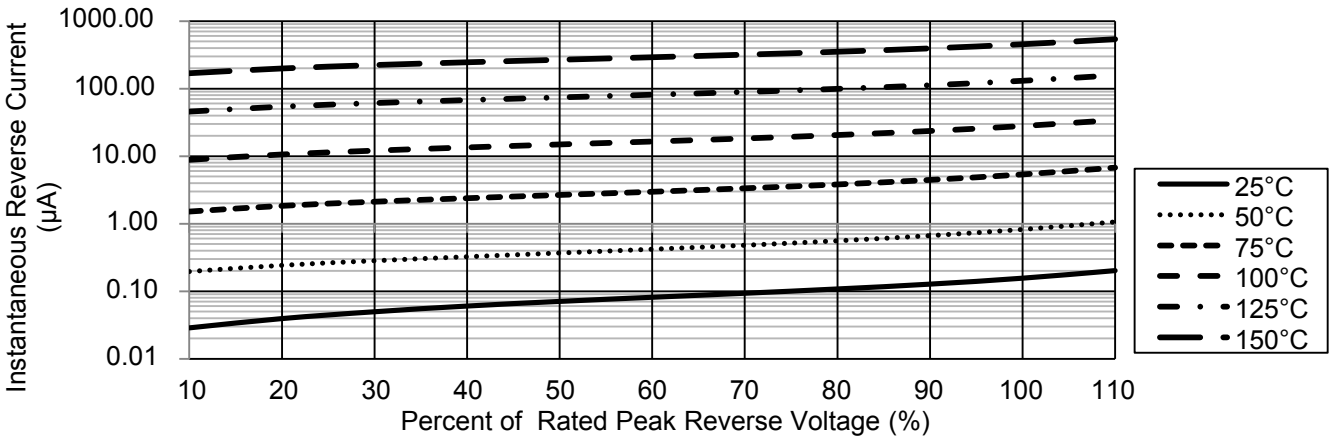
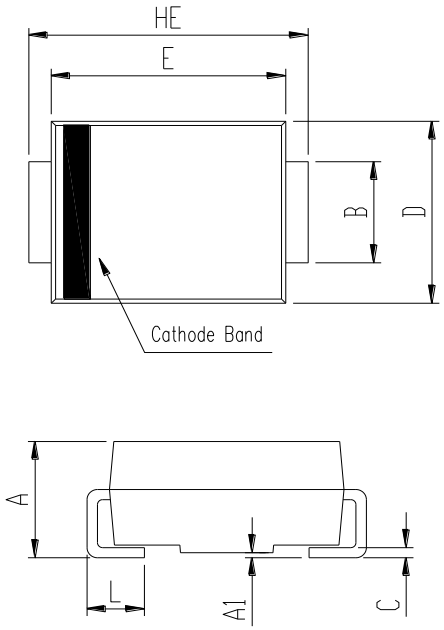


Figure 4. Typical Reverse Characteristics

SK27 thru SK2B

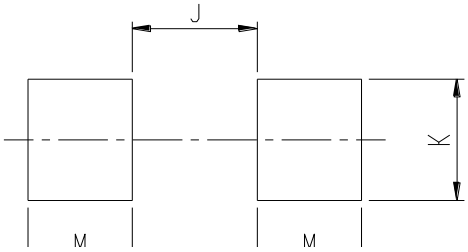
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Reverse Voltage 70-100V Forward Current 2A

Package Outline Dimensions DO-214AA (SMB)



SMB (DO-214AA)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.99	2.61	0.078	0.103
A1	0.00	0.30	0.000	0.012
B	1.70	2.30	0.067	0.091
C	0.15	0.31	0.006	0.012
D	3.30	3.94	0.130	0.155
E	4.06	4.75	0.160	0.187
HE	4.70	5.70	0.185	0.224
L	0.76	1.52	0.030	0.060

Recommended Pad Layout



SMB Recommended Pad Layout (Reference Only)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-

Order Information

Device	Package	Marking	Carrier	Reel Quantity
SK27	DO-214AA (SMB)	SK27	Tape & Reel	3,000pcs/Reel
SK28	DO-214AA (SMB)	SK28	Tape & Reel	3,000pcs/Reel
SK29	DO-214AA (SMB)	SK29	Tape & Reel	3,000pcs/Reel
SK2B	DO-214AA (SMB)	SK2B	Tape & Reel	3,000pcs/Reel