

Schottky Barrier Rectifier

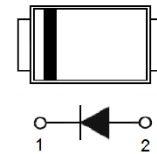
3A 20 to 200V SMA AEC-Q101

SK3-A-A Series

MERITEK

FEATURES

- Low Power Loss, High Efficiency
- Low Profile Package
- High Current Capacity
- AEC-Q101 Compliance
- Application: Switch-Mode Power Supplies, DC-DC Converters, Freewheeling, Battery Chargers, Lighting Systems, Automotive & Industrial Electronics



MECHANICAL DATA

- Case: DO-214AC(SMA) Package, Molded Epoxy Meets UL94V-0
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026 Guaranteed
- Polarity: Color Band Denotes Cathode End

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

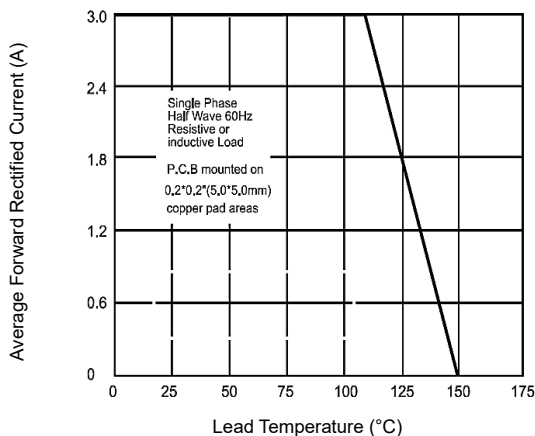
Parameter		SK32 A-A	SK34A -A	SK345 A-A	SK35A -A	SK36A -A	SK38A -A	SK310 A-A	SK315 A-A	SK320 A-A	Unit	
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	20	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage		V _{RMS}	14	28	32	35	42	56	70	105	140	V
Maximum DC Blocking Voltage		V _{DC}	20	40	45	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current at T _L (See Typical Forward Current Derating Curve)		I _(AV)	3.0									A
Peak Forward Surge Current, 8.3ms Single Half-Sinewave Superimposed on Rated		I _{FSM}	80.0									A
Maximum Forward Voltage at 3.0A		V _F	0.55			0.70		0.85		0.92		V
Maximum Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	0.5				0.1				mA	
	T _A =100°C		10.0				5.0					
Typical Thermal Resistance	Junction to Ambient	R _{θJA}	70.0									°C/W
	Junction to Case	R _{θJC}	25.0									
	Junction to Lead	R _{θJL}	30.0									
Diode Junction Capacitance		C _J	500									pF
Operating Junction Temperature Range		T _J	-50 to +150									°C
Storage Temperature Range		T _{STG}	-65 to +150									°C

Note:

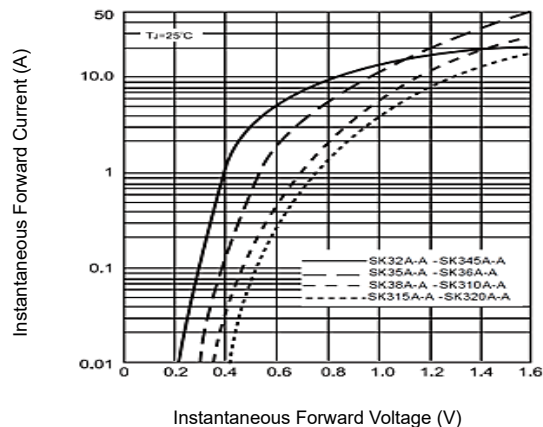
1. $T_A=25^{\circ}\text{C}$ unless otherwise specified.
2. Device mounted on PCB with 10 mm x 20 mm x 0.1 mm copper pad area
3. Peak Forward Surge Current: JEDEC Method
4. Diode junction capacitance is tested in f=1MHz and 4V_{DC} reverse voltage

CHARACTERISTIC CURVES

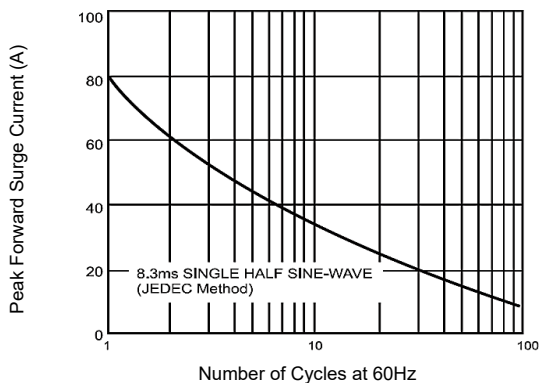
Typical Forward Current Derating Curve



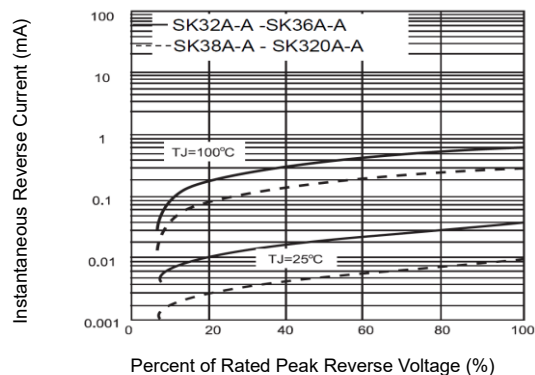
Typical Instantaneous Forward Characteristics



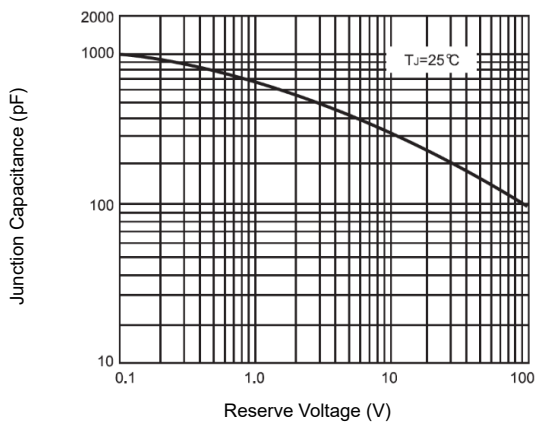
Maximum Non-Repetitive Forward Surge Current



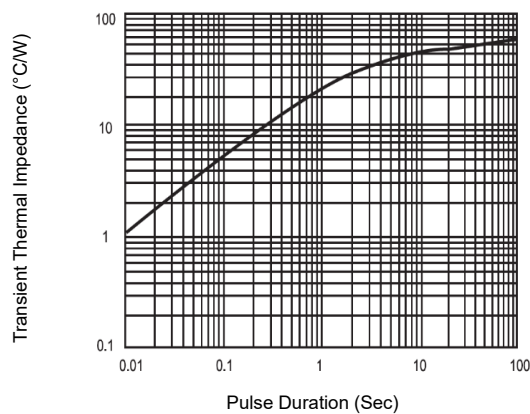
Typical Reverse Characteristics



Typical Junction Capacitance



Typical Transient Thermal Impedance



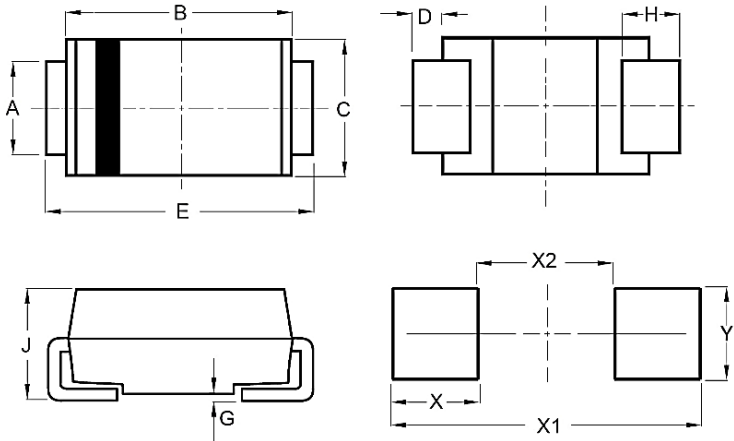
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DIMENSIONS

Item	Min. (mm)	Max. (mm)
A	1.300	1.700
B	3.990	4.500
C	2.450	3.00
D	0.152	0.305
E	4.800	5.280
G	0.000	0.203
H	0.760	1.520
J	1.980	2.420
X	1.600	
X1	5.400	
X2	2.200	
Y	2.800	



*Specifications subject to change without notice