



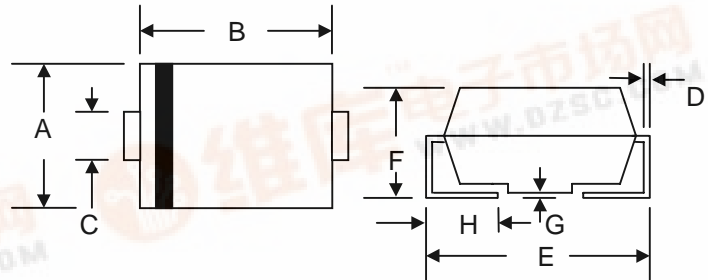
SK52 – S510



5.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 175A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.25
D	0.152	0.305
E	7.75	8.13
F	2.00	2.62
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	SK52	SK53	SK54	SK55	SK56	SK58	SK59	S510	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}										
Working Peak Reverse Voltage	V _{RWM}	20	30	40	50	60	80	90	100	V	
DC Blocking Voltage	V _R										
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	56	64	71	V	
Average Rectified Output Current @T _L = 90°C	I _O	5.0								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	175								A	
Forward Voltage @I _F = 5.0A	V _{FM}	0.50		0.75		0.85				V	
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}					0.5 20					mA
Typical Thermal Resistance (Note 1)	R _{θJL} R _{θJA}					14 50					°C/W
Operating Temperature Range	T _J	-65 to +125								°C	
Storage Temperature Range	T _{STG}	-65 to +150								°C	

Note: 1. Mounted on P.C. Board with 14mm² copper pad area.



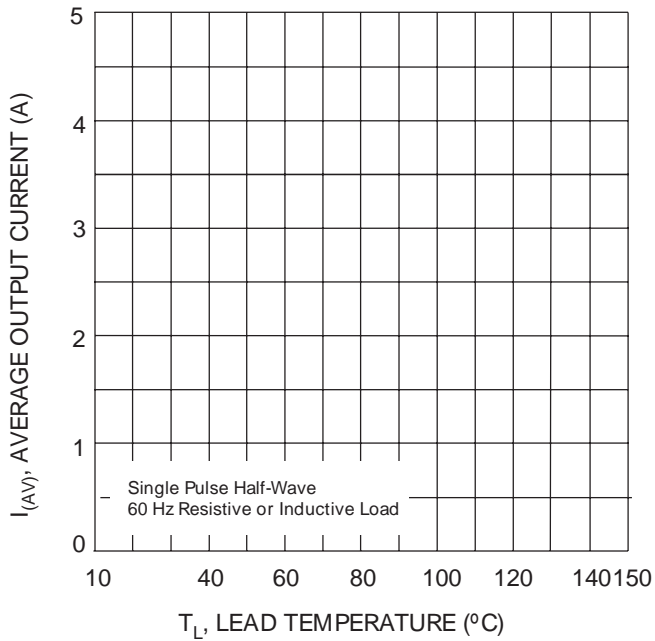


Fig. 1 Forward Current Derating Curve

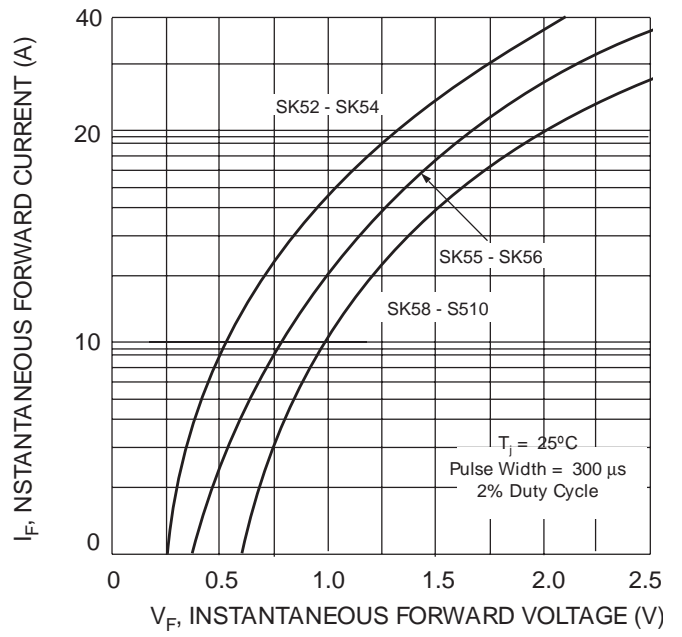


Fig. 2 Typical Forward Characteristics

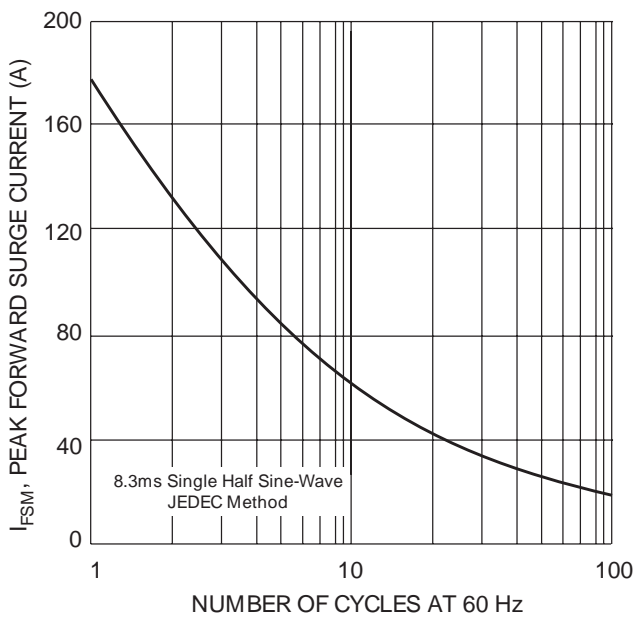


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

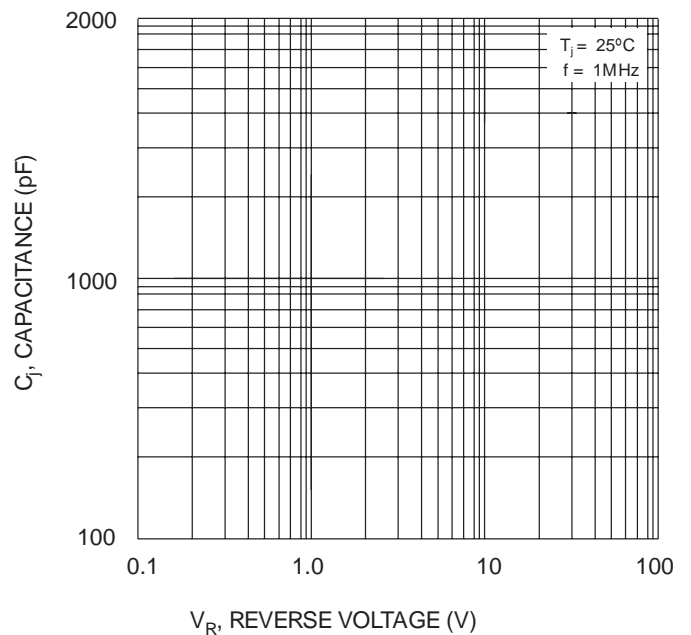



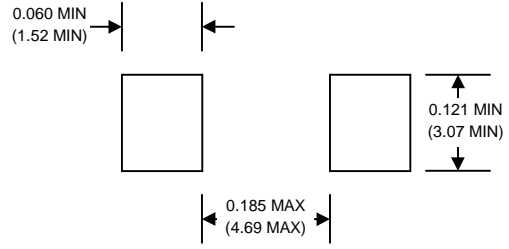
Fig. 4 Typical Junction Capacitance

MARKING INFORMATION

RECOMMENDED FOOTPRINT



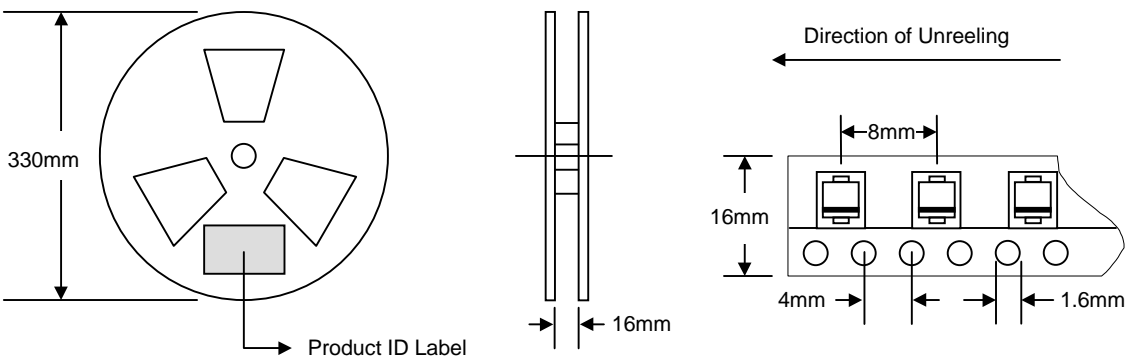
Cathode = Polarity Band
 WTE = Manufacturer's Logo
 SK5x = Device Number Except S510
 x = 2, 3, 4, 5, 6, 8 or 9



inches(mm)

PACKAGING INFORMATION

TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	3,000	340 x 337 x 45	6,000	370 x 370 x 420	48,000	19.0

Note: 1. Paper reel, white or gray color.
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SK52-T3	SMC	3000/Tape & Reel
SK53-T3	SMC	3000/Tape & Reel
SK54-T3	SMC	3000/Tape & Reel
SK55-T3	SMC	3000/Tape & Reel
SK56-T3	SMC	3000/Tape & Reel
SK58-T3	SMC	3000/Tape & Reel
SK59-T3	SMC	3000/Tape & Reel
S510-T3	SMC	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SK52-T3-LF.**

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