

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SK52 - S510



DO-214AB (SMC)  
Surface Mount Package

For use in Low Voltage, High Frequency Inverters, Free Wheeling Diodes and Polarity Protection Applications

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

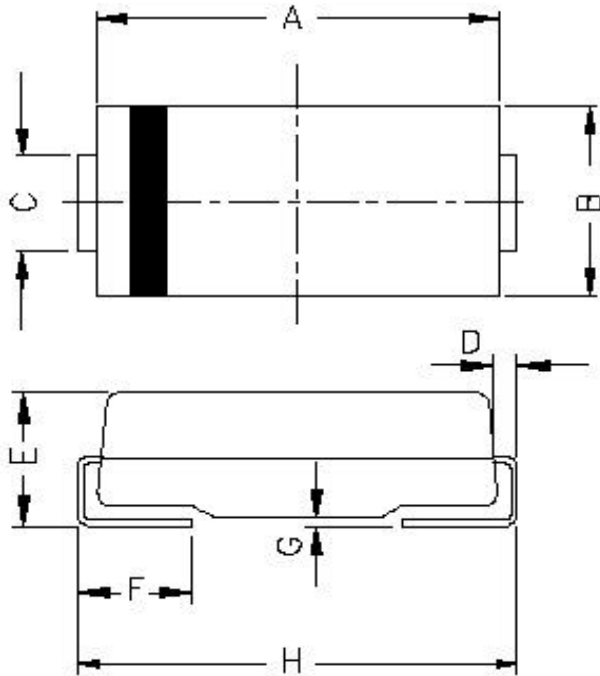
Rating at 25°C ambient temperature unless specified otherwise. Resistive or Inductive Load.

DESCRIPTION	SYMBOL	SK52	SK53	SK54	SK55	SK56	SK58	SK59	S510	UNIT
Maximum Peak Repetitive Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	64	71	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current Lead Length at $T_L=75^\circ\text{C}$	$I_{(AV)}$	5.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100.0								A
Maximum Instantaneous Forward Voltage $I_F=5.0\text{A}$	$*V_F$	0.50			0.70		0.85			V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	$*I_R$	0.5				20				mA mA
Thermal Resistance Junction to Ambient	** $R_{th(j-a)}$	TYP55								$^\circ\text{C/W}$
Thermal Resistance Junction to Lead	** $R_{th(j-L)}$	TYP17								$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	- 55 to +125								$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to +150								$^\circ\text{C}$

\* Pulse Test With  $PW=300\text{ms}$ , 1% Duty Cycle.

\*\* Mounted on PCB with 0.55" x 0.55" (14 x 14mm) Copper Pad Area

SK52\_S510Rec290405E

PACKAGE DO-214AB (SMC)

DIM	MIN.	MAX.
A	6.60	7.11
B	5.59	6.22
C	2.75	3.25
D	0.152	0.305
E	2.00	2.62
F	0.76	1.27
G	0.051	0.203
H	7.75	8.13

DIMENSIONS ARE IN mm

PACKING:- 1.8K / REEL(7" 178mm)

PACKING:- 7.5K / REEL(13" 330mm)

### **Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

### **Customer Notes**

### **Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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**Continental Device India Limited**

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com www.cdilsemi.com