

THERMAL PERFORMANCE				
PARAMETER	SYMBOL	ТҮР	UNIT	
Junction-to-lead thermal resistance	R <sub>ejl</sub>	19	°C/W	
Junction-to-ambient thermal resistance	R <sub>eJA</sub>	60	°C/W	

ELECTRICAL SPECIFIC	ATIONS	(TA = 25°C unless o	therwise noted	)		
PARAMETER		CONDITIONS	SYMBOL	ТҮР	MAX	UNIT
Forward voltage <sup>(1)</sup>	SK52B SK53B	I <sub>F</sub> = 5A, T <sub>J</sub> = 25°C	V <sub>F</sub>	-	0.55	V
	SK54B SK55B SK56B			-	0.75	V
	SK59B SK510B			-	0.85	V
	SK515B			-	0.95	V
Reverse current @ rated $V_R^{(2)}$	SK52B SK53B SK54B SK55B SK56B	T <sub>J</sub> = 25°C	I <sub>R</sub>	-	500	μΑ
	SK59B SK510B SK515B			-	100	μA
Reverse current @ rated $V_R^{(2)}$	SK52B SK53B SK54B	T <sub>J</sub> = 100°C	I <sub>R</sub>	-	20	mA
	SK55B SK56B			-	10	mA
	SK59B SK510B SK515B			-	-	mA
Reverse current @ rated $V_R^{(2)}$	SK52B SK53B SK54B	T <sub>J</sub> = 125°C	I <sub>R</sub>	-	-	mA
	SK55B SK56B			-	-	mA
	SK59B SK510B SK515B			-	2	mA

#### Notes:

1. Pulse test with PW = 0.3ms

2. Pulse test with PW = 30ms



# ORDERING INFORMATION ORDERING CODE<sup>(1)</sup> PACKAGE PACKING SK5xB DO-214AA (SMB) 3,000 / Tape & Reel

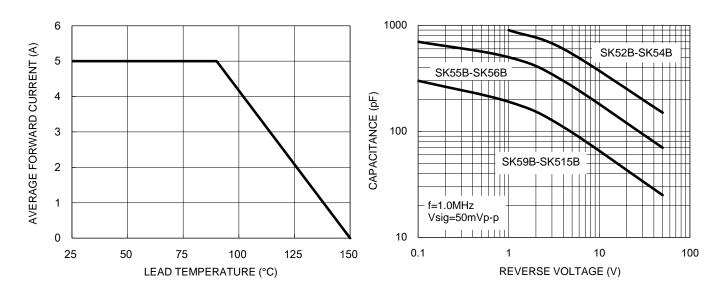
Notes:

1. "x" defines voltage from 20V(SK52B) to 150V(SK515B)



#### **CHARACTERISTICS CURVES**

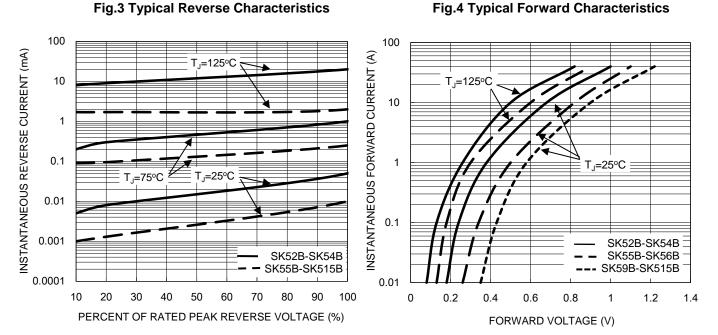
 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$ 



#### Fig.1 Forward Current Derating Curve

**Fig.4 Typical Forward Characteristics** 

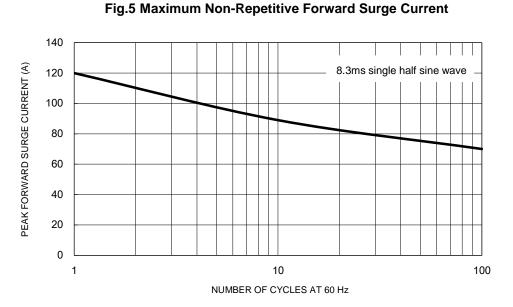
**Fig.2 Typical Junction Capacitance** 



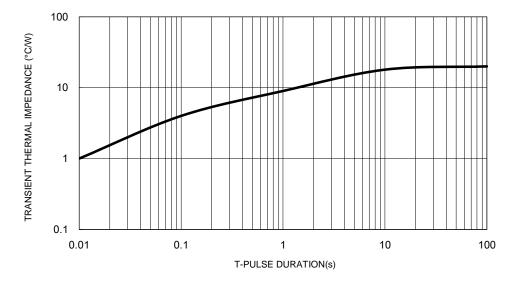


#### **CHARACTERISTICS CURVES**

(T<sub>A</sub> = 25°C unless otherwise noted)

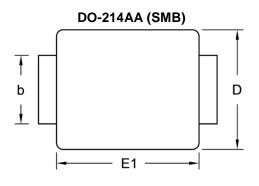


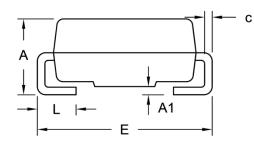
**Fig.6 Typical Transient Thermal Characteristics** 





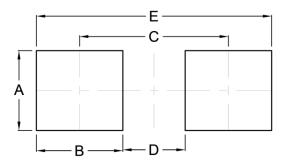
## PACKAGE OUTLINE DIMENSIONS





DIM.	Unit (mm)		Unit	(inch)
	Min.	Max.	Min.	Max.
A	1.95	2.65	0.077	0.104
A1	0.05	0.20	0.002	0.008
b	1.95	2.20	0.077	0.087
с	0.15	0.31	0.006	0.012
D	3.30	3.95	0.130	0.156
E	5.10	5.60	0.201	0.220
E1	4.05	4.60	0.159	0.181
L	0.75	1.60	0.030	0.063

### SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	2.30	0.091
В	2.50	0.098
С	4.30	0.169
D	1.80	0.071
E	6.80	0.268

### **MARKING DIAGRAM**



P/N	= Marking Code
-----	----------------

G = Green Compound

YW = Date Code

F = Factory Code



Taiwan Semiconductor

## Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Purchasers are solely responsible for the choice, selection, and use of TSC products and TSC assumes no liability for application assistance or the design of Purchasers' products.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Taiwan Semiconductor:SK515BSK510BSK53BSK54BSK56B