



Data Sheet

Customer :

Product : Small Signal Schottky Diode-Standard

Part No.: SK52A/SK54A/SK56A/SK510A/SK515A/SK520A

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VIKING TECH CORPORATION
光頓科技股份有限公司

No.70, Kuanfu N. Rad.,
Hsin Chu Industrial Park,
Hukou Hsiang, Hsin Chu Hsien,
303, Taiwan

TEL:886-3-5972931
FAX:886-3-5972935•886-3-5973494
E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH
光頓科技股份有限公司高雄分公司

No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,
806, Taiwan

TEL:886-7-8217999
FAX:886-7-8228229
E-mail:sales@viking.com.tw

WUXI TMTEC CO., LTD.
無錫泰銘電子有限公司

No.1A,(Xixia Road),Machinery & Industry Park,
National Hi-Tech Industrial Development Zone of
Wuxi, Wuxi, Jiangsu Province, China
Zip Code:214028

TEL:86-510-85203339
FAX:86-510-85203667•86-510-85203977
E-mail:wuxisales@tmtec.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
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Kris	Ann	J.C Liu		



5 Amperes Surface Mount Schottky Barrier Rectifiers

Voltage : 20 to 200Volts

Features

- Low profile surface mounted application in order to optimize board space
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500/228
- Halogen free



Mechanical Data

Epoxy : UL94-V0 rated flame retardant

Case : Molded Plastic, DO-214AC/SMA

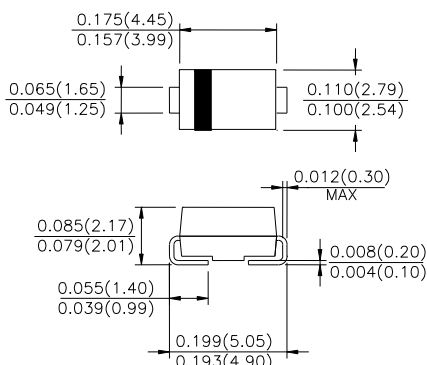
Terminals : Solder plated, Solderable per MIL-STD-750, Method 2026

Polarity : Indicated by cathode band

Weight : 0.002 ounce, 0.055 gram

Packaging : 1.5Kpcs per 7" reel
5Kpcs per 13" reel

Package Dimensions in inches(millimeters): DO-214AC/SMA



Maximum Ratings And Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbol	SK52A	SK54A	SK56A	SK510A	SK515A	SK520A	Unit
Marking Code		SK52	SK54	SK56	SK510	SK515	SK520	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	100	150	200	V
Maximum Instantaneous Forward Voltage @ 5.0A, $T_A=25^\circ\text{C}$	V_F	0.50	0.55	0.75	0.81	0.87	0.90	V
Operating Temperature	T_J	-50 ~ +125			-50 ~ +150			°C

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.1	I_o			5.0	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			125	A
Reverse Current	$V_R=V_{RRM}, T_A=25^\circ\text{C}$	I_R			0.5	mA
	$V_R=V_{RRM}, T_A=100^\circ\text{C}$				20	
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		24		°C/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		380		pF
Storage Temperature		T_{STG}	-50		+150	°C

Rated and Characteristic Curve

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

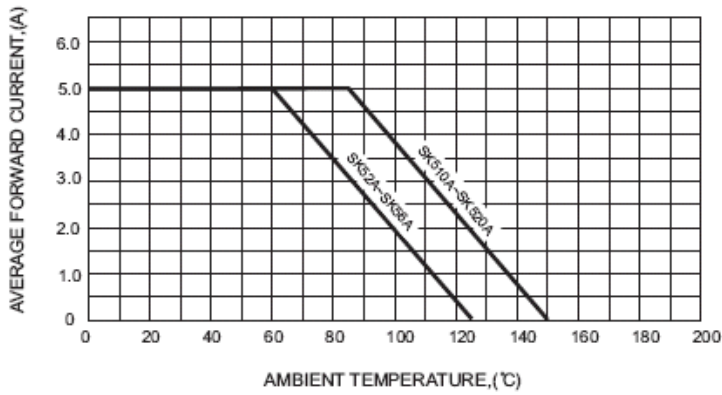


FIG.2-TYPICAL FORWARD CHARACTERISTICS

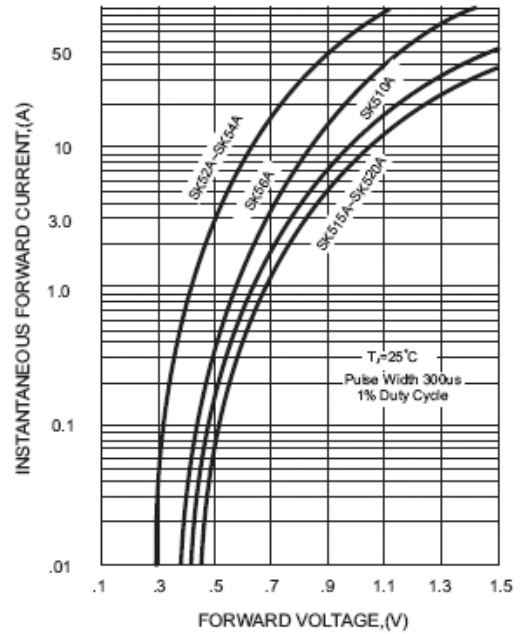


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

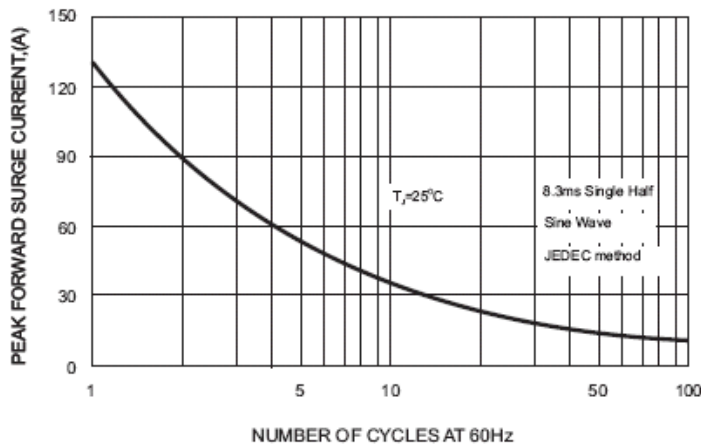


FIG.4-TYPICAL JUNCTION CAPACITANCE

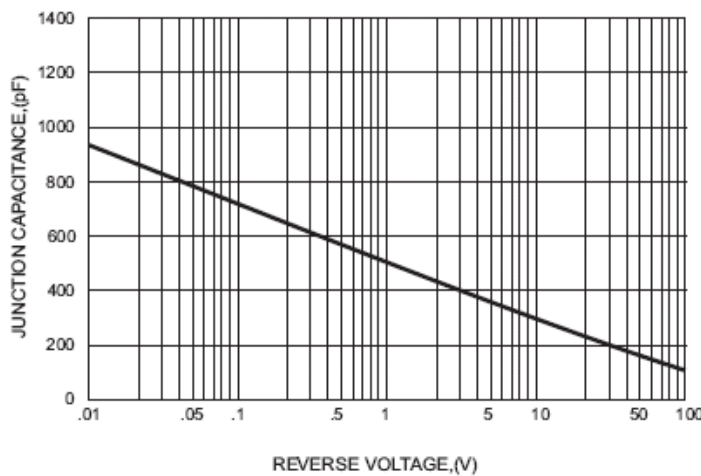


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

