



Data Sheet

Customer :

Product : Small Signal Schottky Diode-Standard

Part No.: SKS12C / SKS14C / SKC16C

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1 Amperes Surface Mount Schottky Barrier Rectifiers

Voltage : 20 to 60Volts

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-214AB/SMC

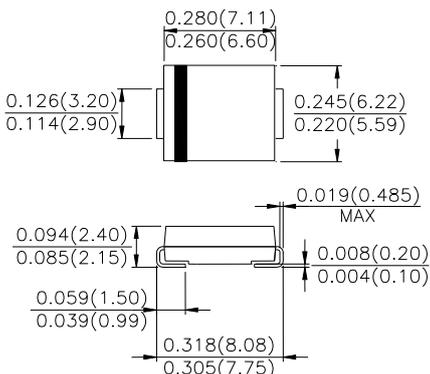
Terminals : Solder plated, Solderable per MIL-STD-750, Method 2026

Polarity : Indicated by cathode band

Weight : 0.007 ounce, 0.226 gram

Packaging : 0.5Kpcs per 7" reel
3Kpcs per 13" reel

Package Dimensions in inches(millimeters): DO-214AB/SMC



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	SKS12C	SKS14C	SKS16C	Unit
Marking Code		KS12	KS14	KS16	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	V
Maximum RMS Voltage	V_{RMS}	14	28	42	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	V
Maximum Instantaneous Forward Voltage@1.0A, $T_A=25^\circ\text{C}$	V_F	0.35	0.40	0.50	V
Operating Temperature	T_J	-50 ~ +125			°C

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.1	I_O			1.0	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	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	$R_{\theta JA}$		88		°C/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		120		pF
Storage Temperature		T_{STG}	-50		+150	°C

Rated and Characteristic Curve

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

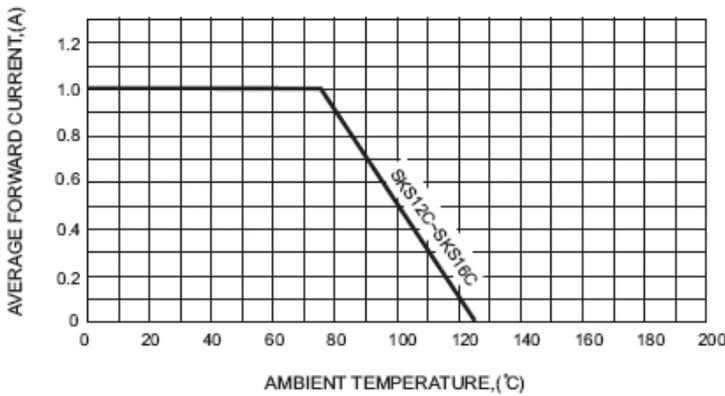


FIG.2-TYPICAL FORWARD CHARACTERISTICS

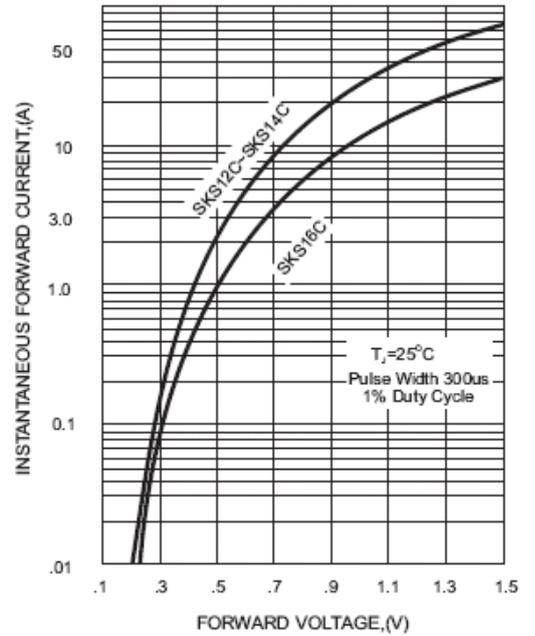


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

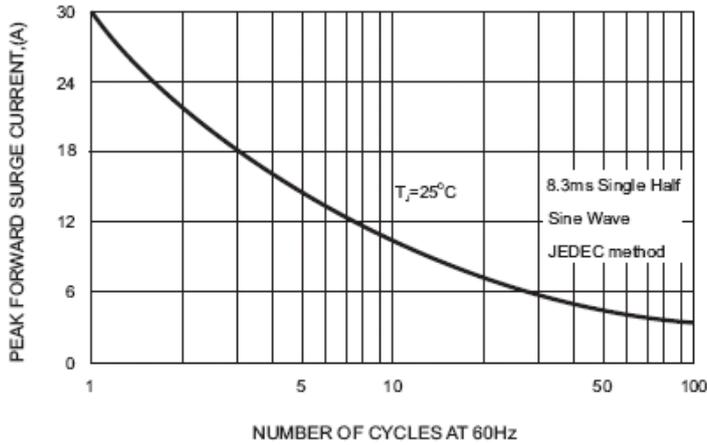


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

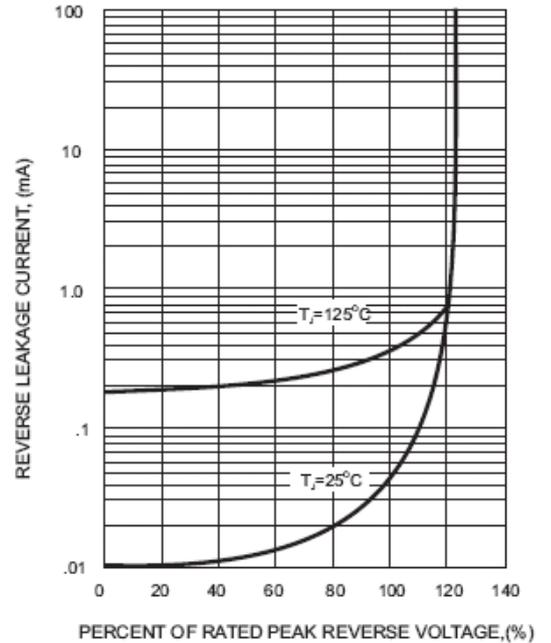


FIG.4-TYPICAL JUNCTION CAPACITANCE

