



Data Sheet

Customer :

Product : Small Signal Schottky Diode-Low VF

Part No.: SLS12A/SLS13A/SLS14A

Issued Date: 25-Mar-11

Edition : REV.A



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25-Mar-11	25-Mar-11	25-Mar-11	25-Mar-11	
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1 Amperes Surface Mount Schottky Barrier Rectifiers Voltage : 20 to 40Volts

■ 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

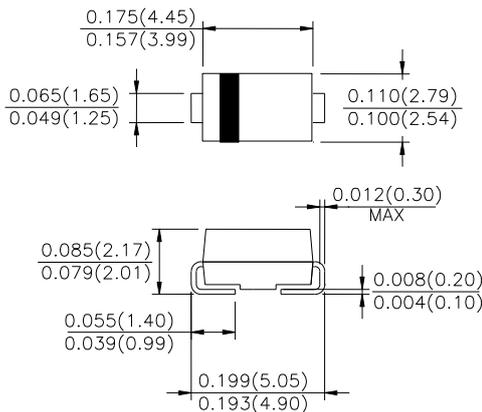
Terminals : Solder plated, Solderable per MIL-STD-750, Method 2026

Polarity : Indicated by cathode end

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	SLS12A	SLS13A	SLS14A	Unit
Marking Code		SLS12	SLS13	SLS14	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Instantaneous Forward Voltage@1.0A, $T_A=25^\circ\text{C}$	V_F	0.33			V
Operating Temperature	T_J	-50 ~ +100			°C

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.2	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			1.0	mA
	$V_R=V_{RRM}, T_A=100^\circ\text{C}$				20	
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		70		°C/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		160		pF
Storage Temperature		T_{STG}	-50		+150	°C

Rated and Characteristic Curve

FIG.1-TYPICAL FORWARD CHARACTERISTICS

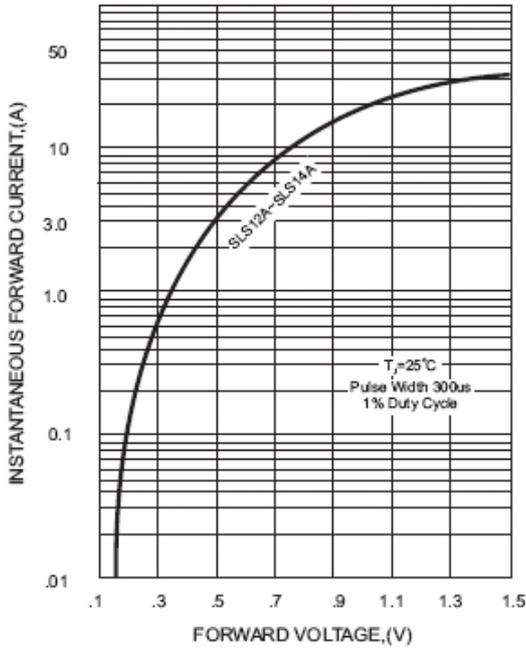


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

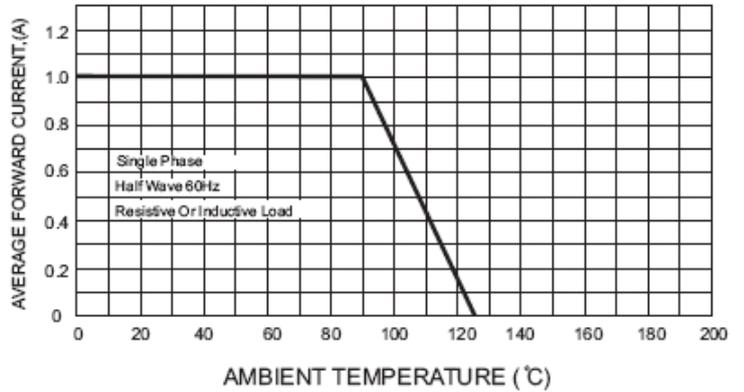


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

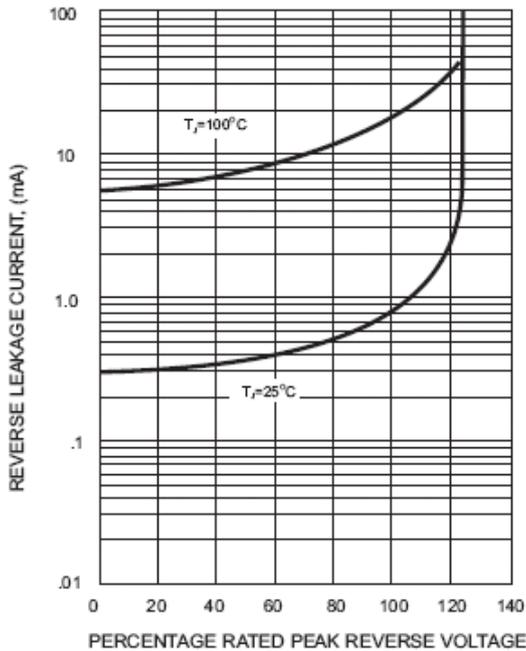


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

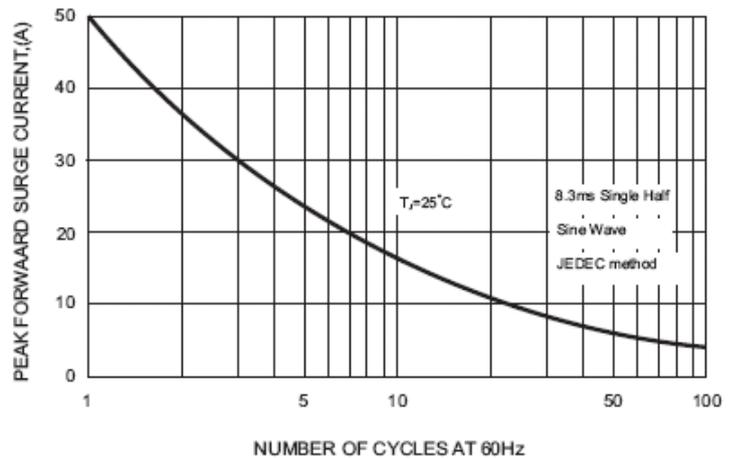


FIG.5-TYPICAL JUNCTION CAPACITANCE

