Elektronische Bauelemente

SUF101JD-C~SUF105JD-C

Voltage 50V~600V, 1.0 Amp

Surface Mount Super Fast Recovery Rectifiers

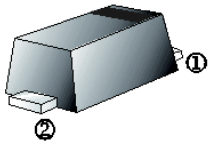
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current

SOD-123JD

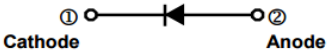


MECHANICAL DATA

- Case: JEDEC SOD-123JD
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

MARKING

Part Number	Marking Code	Part Number	Marking Code
SUF101JD-C	ESL	SUF104JD-C	ESM
SUF102JD-C		SUF105JD-C	ESH
SUF103JD-C			



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123JD	3K	7 inch

ORDER INFORMATION

Part Number	Type
SUF101JD-C~SUF105JD-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

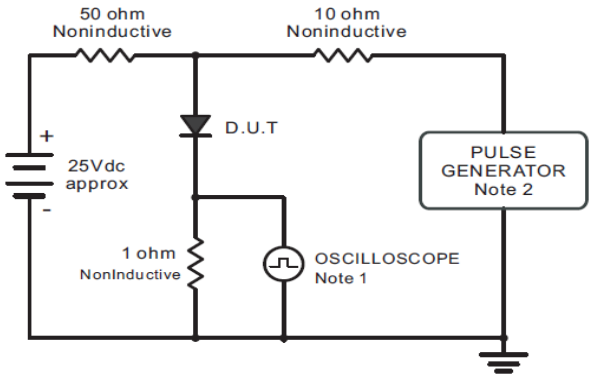
Parameter		Symbol	Part Number					Unit
			SUF101 JD-C	SUF102 JD-C	SUF103 JD-C	SUF104 JD-C	SUF105 JD-C	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current		I_F	1					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	25					A
Maximum Instantaneous Forward Voltage I_F=1A @25°C		V_F	1			1.25	1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	5					μA
	T_A=125°C		100					
Maximum Reverse Recovery Time [1]		T_{RR}	35					nS
Typical Junction Capacitance [3]		C_J	10					pF
Typical Thermal Resistance [2]		$R_{\theta JL}$	20					°C/W
		$R_{\theta JC}$	40					
Operating & Storage Temperature		T_J, T_{STG}	-55~150					°C

Notes:

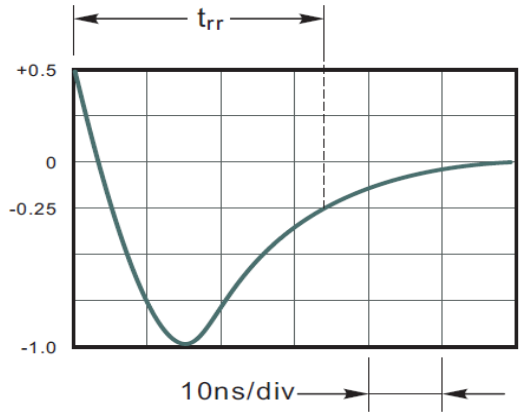
1. Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A.
2. P.C.B. mounted with 10 x 10 x 0.2 mm copper pad areas.
3. Measured at 1MHz and applied reverse voltage of 4V D.C.

CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Ries Time =10ns, max.
Source Impedance = 50 ohms.



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

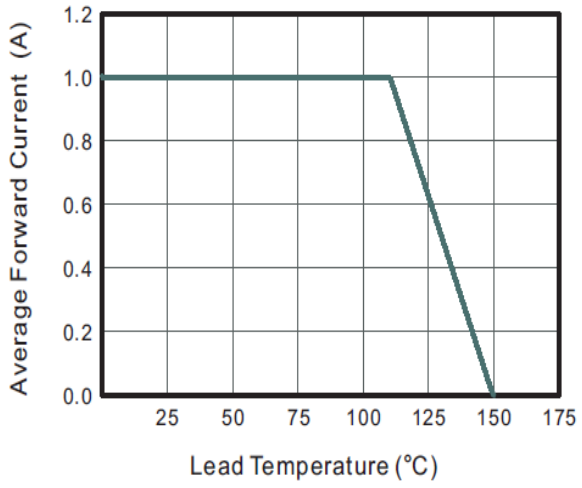


Fig.3 Typical Reverse Characteristics

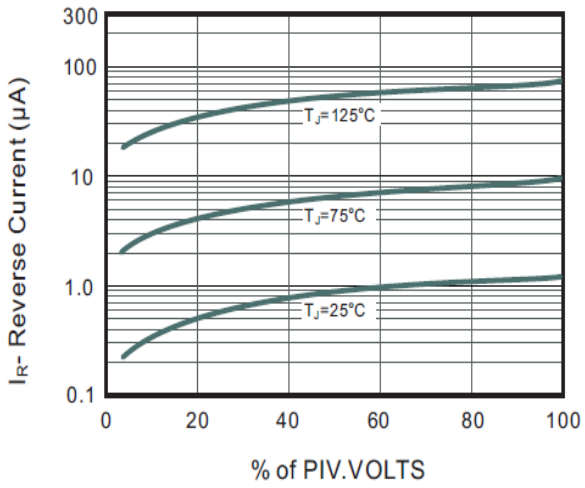


Fig.4 Typical Forward Characteristics

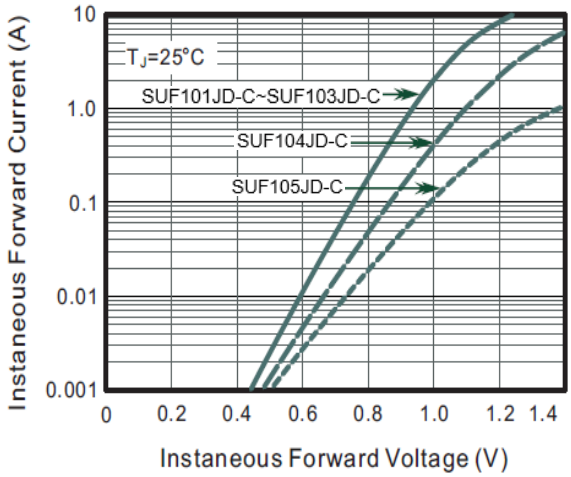
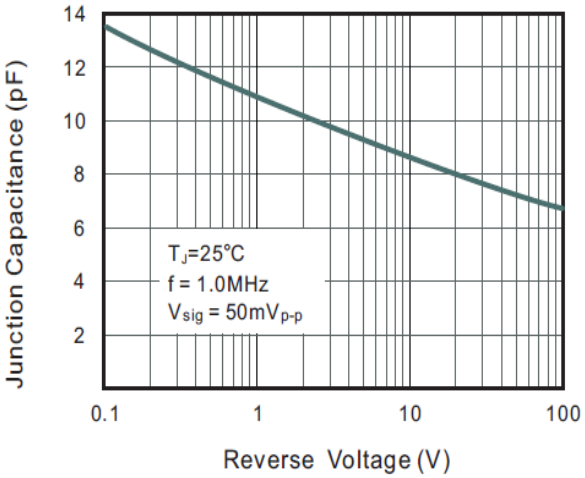
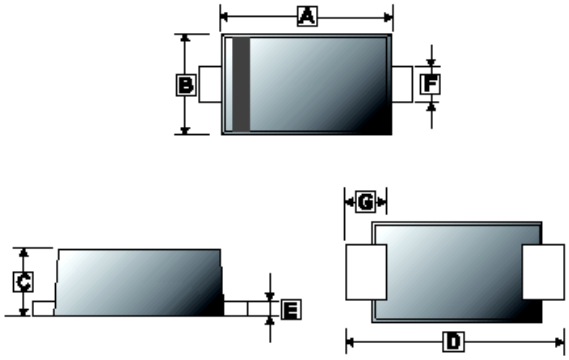


Fig.5 Typical Junction Capacitance



PACKAGE OUTLINE DIMENSIONS

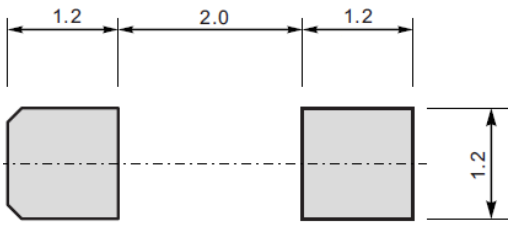
SOD-123JD



REF.	Millimeter	
	Min.	Max.
A	2.60	2.90
B	1.70	1.90
C	0.90	1.10
D	3.50	3.80
E	0.10	0.20
F	0.80	1.10
G	0.70	0.90

MOUNTING PAD LAYOUT

SOD-123JD



*Dimensions in millimeters