Elektronische Bauelemente

SUF101AR-C~SUF105AR-C

Voltage 50~600V

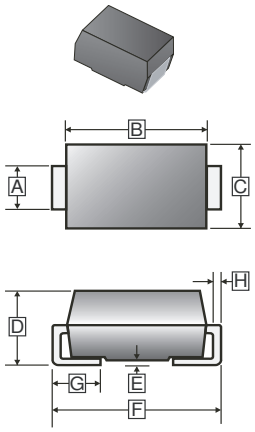
1Amp High Efficiency Recovery Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- For Surface Mounted Applications
- Low Profile Package
- Glass Passivated Chip Junction
- Superfast Reverse Recovery Time

SMA



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.24	1.65	E	-	0.3
B	3.99	4.75	F	4.80	5.28
C	2.30	2.90	G	0.76	1.52
D	1.90	2.62	H	0.15	0.31

MECHANICAL DATA

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

MARKING

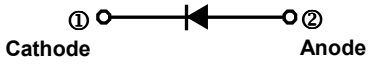
Part Number	Marking Code	Part Number	Marking Code
SUF101AR-C	ES1A	SUF104AR-C	ES1G
SUF102AR-C	ES1B	SUF105AR-C	ES1J
SUF103AR-C	ES1D		

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

ORDER INFORMATION

Part Number	Type
SUF101AR-C~SUF105AR-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 AR-C	SUF102 AR-C	SUF103 AR-C	SUF104 AR-C	SUF105 AR-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		$I_{F(AV)}$	1					A
Peak Forward Surge Current @8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	30					A
Maximum Forward Voltage @1A		V_F	1			1.25	1.7	V
Maximum DC Reverse Current @Rated DC Blocking Voltage	T_A=25°C	I_R	5					μA
	T_A=125°C		100					
Typical Junction Capacitance @V_R=4V, f=1MHz		C_J	15					pF
Maximum Reverse Recovery Time [1]		t_{rr}	35					nS
Typical Thermal Resistance [2]		$R_{\theta JA}$	110					°C/W
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 1X1" (2.54X2.54cm) copper pad areas.

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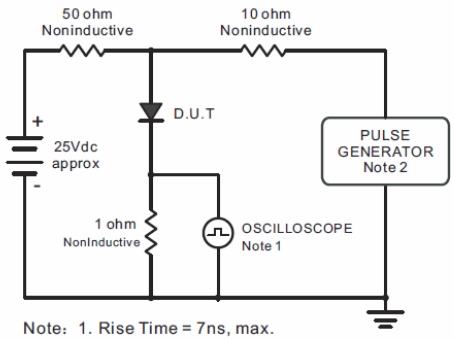
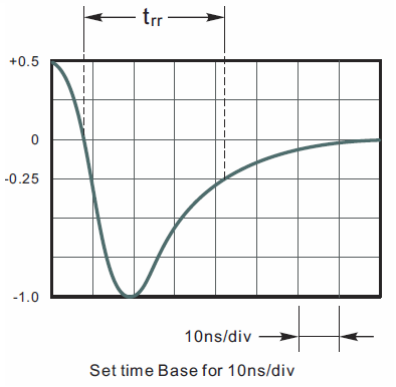
RATINGS AND CHARACTERISTIC CURVES

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

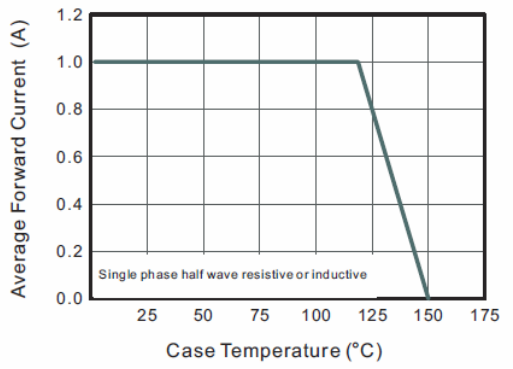


Fig.3 Typical Reverse Characteristics

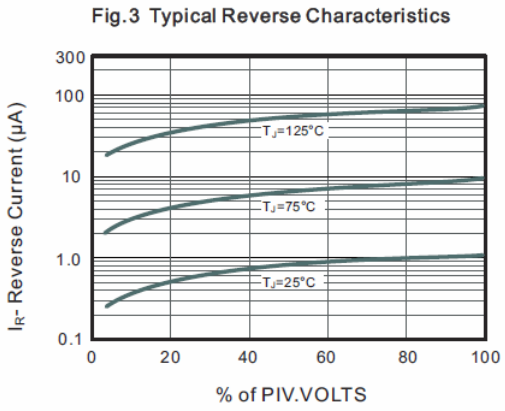


Fig.4 Typical Forward Characteristics

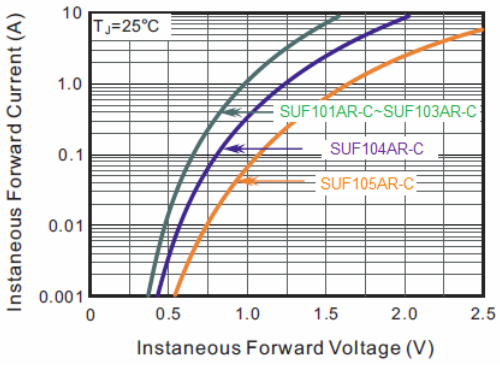


Fig.5 Typical Junction Capacitance

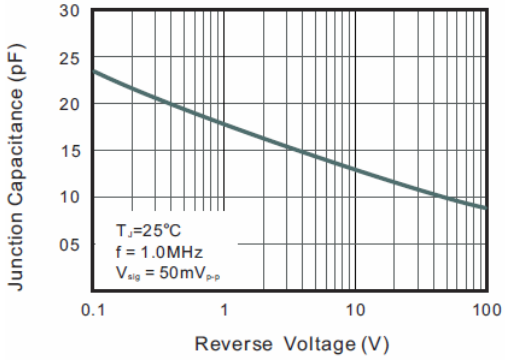


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current