Elektronische Bauelemente

SUF301BR-C~SUF305BR-C

Voltage 50~600V

3.0 Amp Super Fast Recovery Rectifiers

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

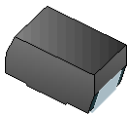
FEATURES

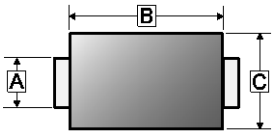
- For Surface Mounted Applications
- Low Profile Package
- Glass Passivated Chip Junction
- Super Fast Reverse Recovery Time
- Lead Free in Comply with EU RoHS 2011/65/EU Directives

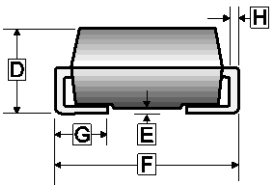
MECHANICAL DATA

- Case: Molded Plastic SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End

SMB







REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.85	2.20	E	-	0.25
B	4.00	4.85	F	5.05	5.59
C	3.25	3.94	G	0.75	1.55
D	1.90	2.61	H	0.15	0.31

MARKING

Part Number	Marking Code	Part Number	Marking Code
SUF301BR-C	ES3A	SUF304BR-C	ES3G
SUF302BR-C	ES3B	SUF305BR-C	ES3J
SUF303BR-C	ES3D		

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

ORDER INFORMATION

Part Number	Type
SUF301BR-C~SUF305BR-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
			SUF301BR-C	SUF302BR-C	SUF303BR-C	SUF304BR-C	SUF305BR-C	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	
Maximum Average Forward Rectified Current @T_C=100°C		I_F	3					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	90					A
Maximum Instantaneous Forward Voltage @I_F=3A		V_F	1			1.25	1.68	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 [2]		C_J	45					pF
Maximum Reverse Recovery Time [1]		T_{rr}	35					nS
Typical Thermal Resistance [3]		$R_{\theta JA}$	50					°C/W
		$R_{\theta JC}$	16					
Operating & Storage Temperature Range		T_J,T_{STG}	-55~150					°C

Notes:

1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1MHz and applied reverse voltage of 4V D.C.
3. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

Elektronische Bauelemente

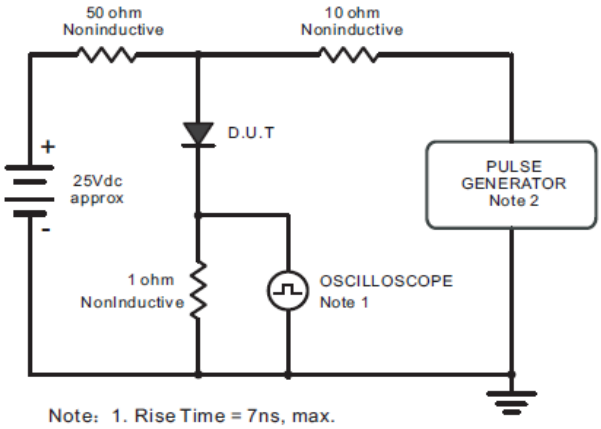
SUF301BR-C~SUF305BR-C

Voltage 50~600V

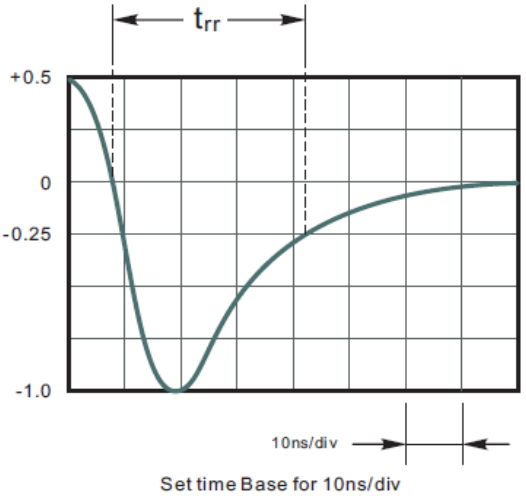
3.0 Amp Super Fast Recovery Rectifiers

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

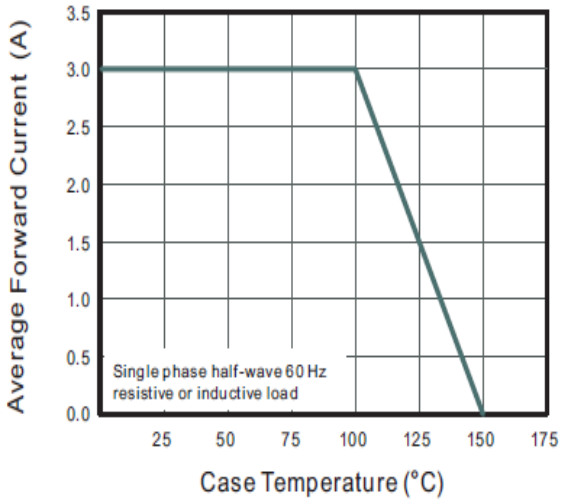


Fig.3 Typical Reverse Characteristics

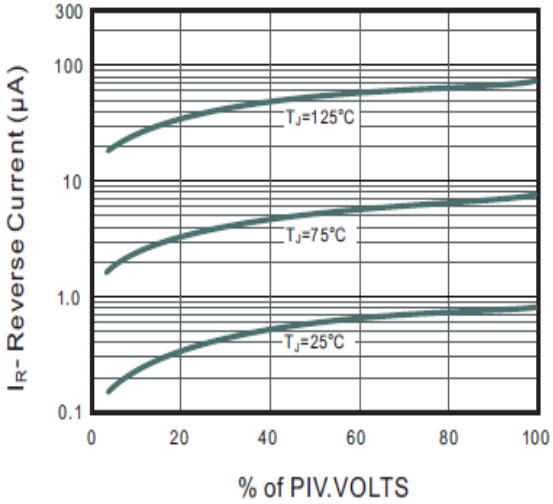


Fig.4 Typical Forward Characteristics

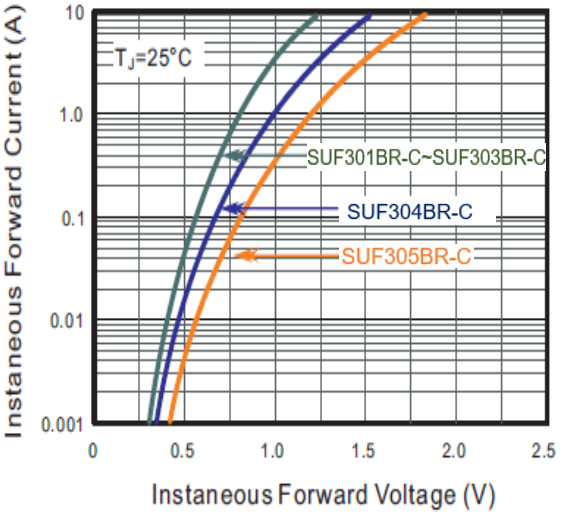
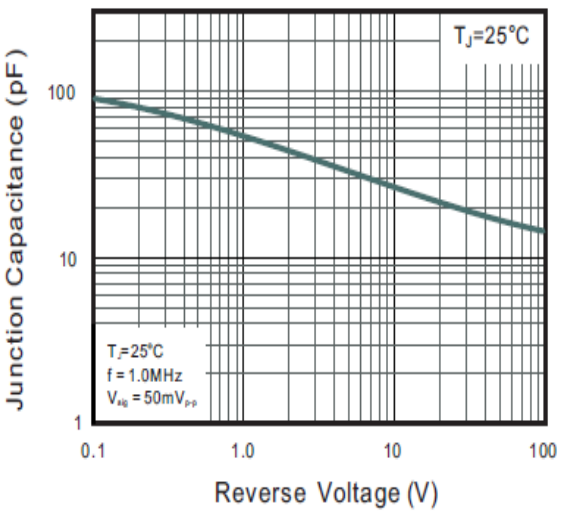


Fig.5 Typical Junction Capacitance



RATINGS AND CHARACTERISTIC CURVES

Fig.6 Maximum Non-Repetitive Peak Forward Surage Current

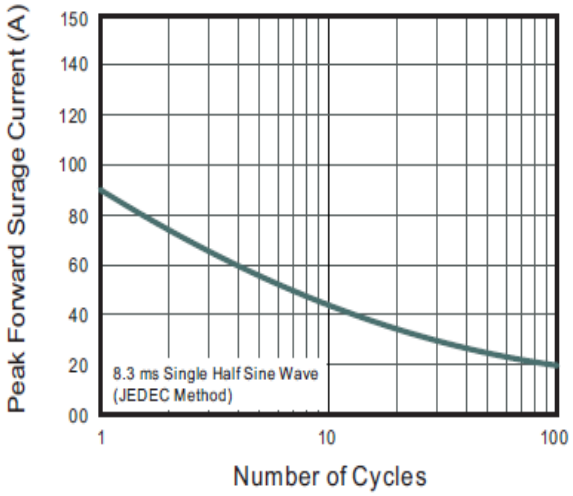
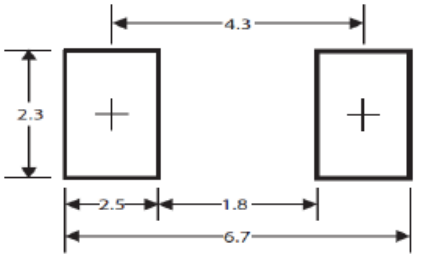


Fig.7 Mounting Pad Layout



*Dimensions in millimeters