Elektronische Bauelemente

SEF305BS

600 V 3.0 Amp

High Efficiency Recovery Rectifiers

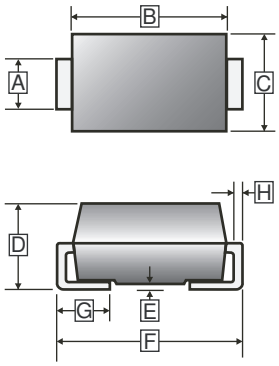
RoHS Compliant Product

A suffix of “-C” specifies halogen-free and RoHS Compliant

FEATURES

- Surface mount device
- High surge current capability
- Low reverse current

SMB



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.91	2.20	E	-	0.203
B	4.06	4.75	F	5.08	5.59
C	3.30	3.94	G	0.76	1.52
D	1.95	2.65	H	0.15	0.31

MECHANICAL DATA

- Cases：DO-214AA(SMB)
- Case Material：Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals：Lead Free Plating(Tin Finish) Solderable Per MIL-STD-202, Method 208
- Polarity：Cathode Band

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

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
Maximum repetitive peak reverse voltage		V_{RRM}	600	V
Maximum average forward rectified current see Fig 2.@ 60Hz Half-sine wave, Resistance load, T_L=110℃		I_F	3	A
Peak Forward Surge Current@ 60Hz Half-sine wave, 1 cycle, T_A=25℃		I_{FSM}	100	A
Maximum Instantaneous Forward Voltage@ I_F=3A		V_F	1.7	V
Peak Reverse Current	T_A=25℃	I_{RRM}	10	μA
	T_A=100℃		200	
Maximum Reverse Recovery Time@ I_F=0.5A, I_R=1A, I_{RR}=0.25A		T_{RR}	75	ns
Thermal Resistance, Junction to Ambient (Typ.)[1]		$R_{\theta JA}$	47	℃/W
Thermal Resistance, Junction to Lead (Typ.)[1]		$R_{\theta JL}$	13	℃/W
Storage and Operating Temperature Range		T_J, T_{STG}	-55 ~ 150	℃

NOTES:

1. Thermal resistance form junction to ambient and from junction to lead mounted on P.C.B. with 0.2”×0.2" (5.0mm × 5.0mm) copper pad areas.

CHARACTERISTIC CURVES

FIG.1: FORWARD CURRENT DERATING CURVE

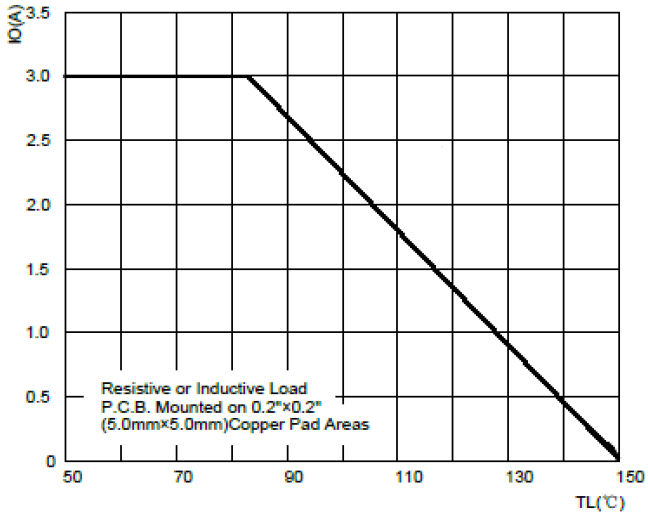


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

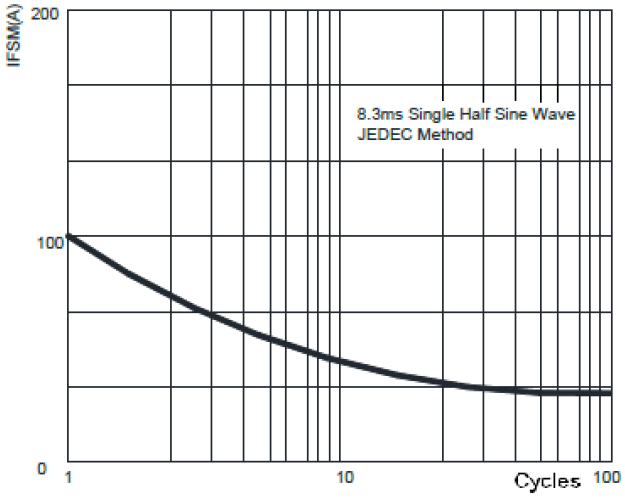


FIG.3: TYPICAL FORWARD CHARACTERISTICS

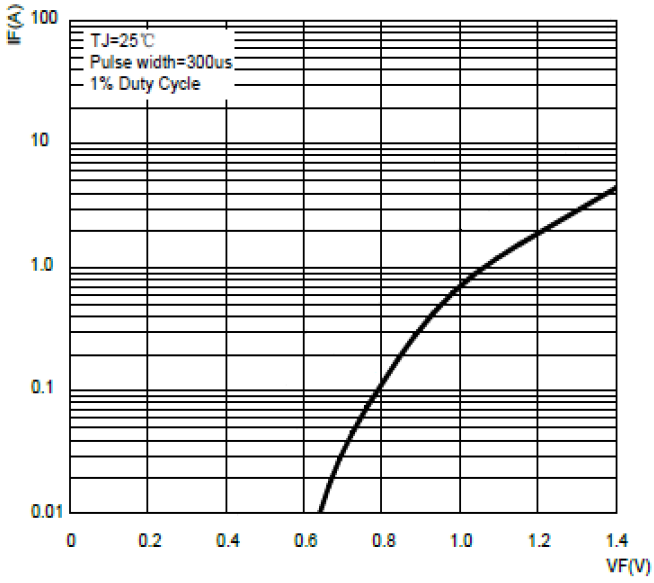


FIG.4：TYPICAL REVERSE CHARACTERISTICS

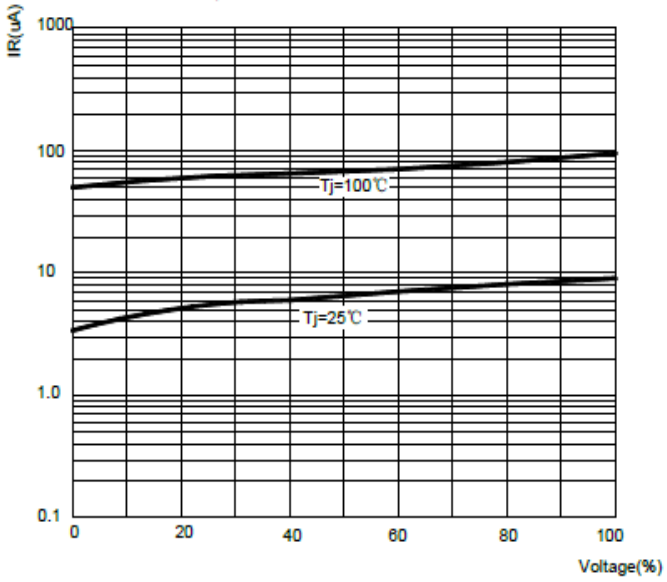


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

