Elektronische Bauelemente

SEF101B ~ SEF107B

50 ~ 1000 V

1.0 Amp High Efficiency Recovery Rectifiers

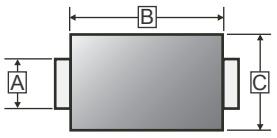
RoHS Compliant Product

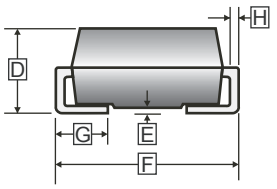
A suffix of "-C" specifies halogen-free and RoHS Compliant

FEATURES

- Surface mount device
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

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
- Weight：0.064 grams(approximate)

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
		SEF 101B	SEF 102B	SEF 103B	SEF 104B	SEF 105B	SEF 106B	SEF 107B	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current T_A=55°C	I_F	1							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1A	V_F	1			1.3	1.5	1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=25°C	I_R	5							μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A =100°C	I_R	100							μA
Typical Junction Capacitance [1]	C_J	20					15		pF
Maximum Reverse Recovery Time[2]	Trr	50					75		ns
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50							°C/W
Storage and Operating Temperature Range	T_{STG}, T_J	-55 ~ 150							°C

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
2. Measured with IF=0.5A, IR=1A, IRR=0.25A

CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

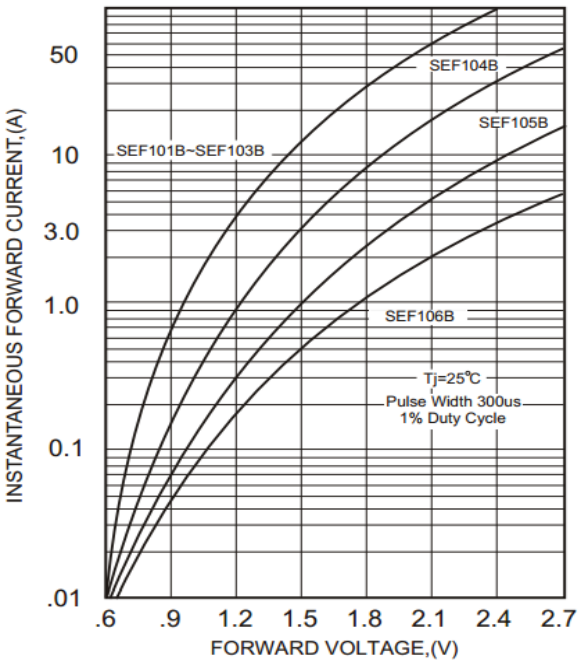


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

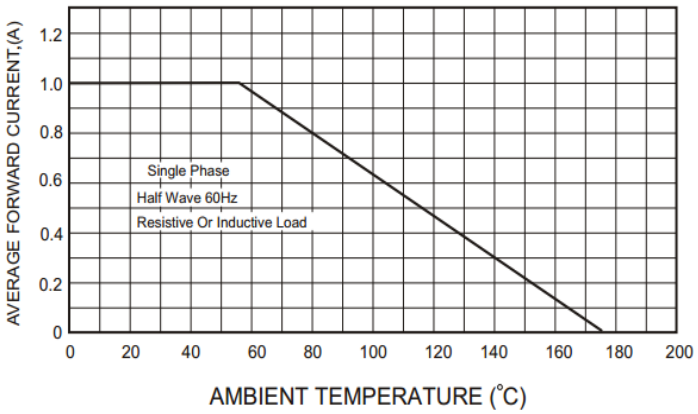
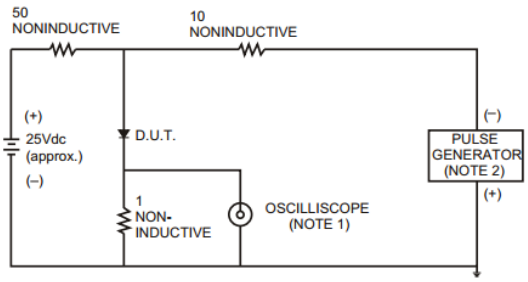


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

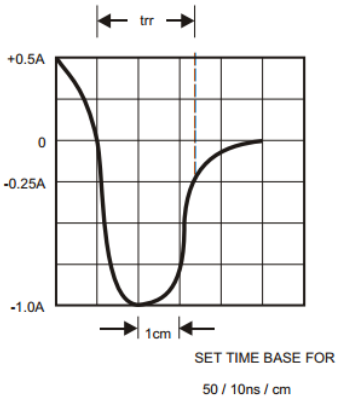


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

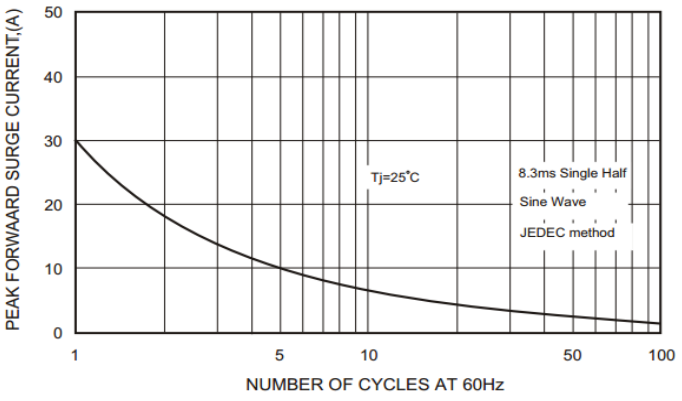


FIG.5-TYPICAL JUNCTION CAPACITANCE