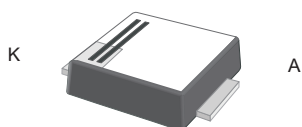


Surface Mount Fast Recovery Rectifier

ES2KBF SMBF



Cathode  Anode

Features

- Low forward voltage drop
- Low leakage
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability.

Mechanical Data

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

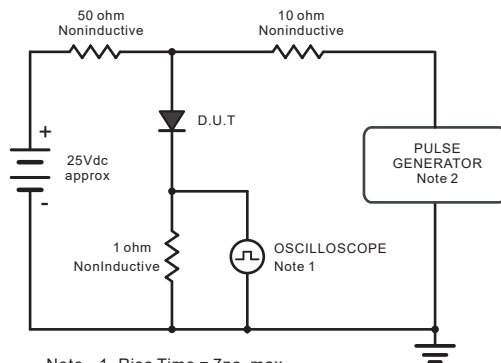
Parameter	Symbols	ES2KBF	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	800	V
Maximum RMS voltage	VRMS	560	V
Maximum DC Blocking Voltage	VDC	800	V
Maximum Average Forward Rectified Current	I(AV)	2.0	A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	Trr	35	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	60	A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	10.3	A ² S
Maximum Forward Voltage at 2.0A and 25°C	VF	1.7	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=100 °C	IR	5 100	μA
Typical Junction Capacitance (Note1)	Cj	40	pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150	°C
Typical thermal resistance (Note 2)	RθJ-C	20	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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

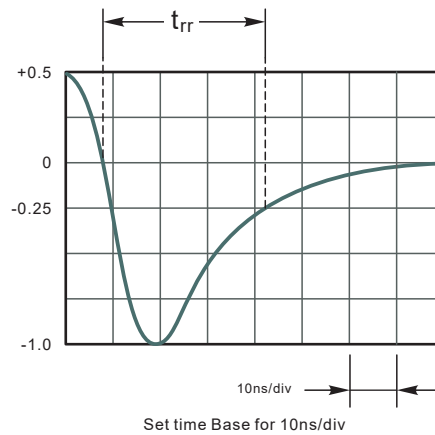


Fig.2 Maximum Average Forward Current Rating

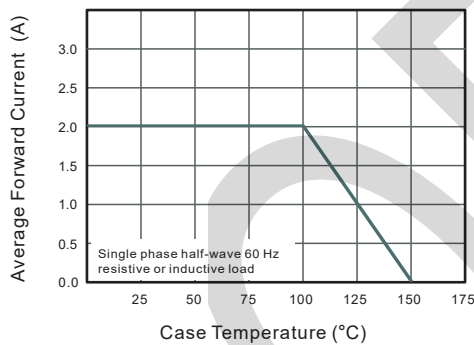


Fig.3 Typical Reverse Characteristics

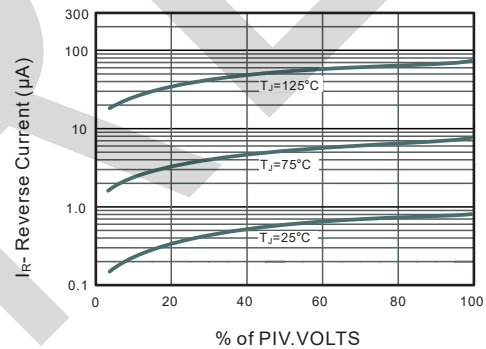


Fig.4 Typical Forward Characteristics

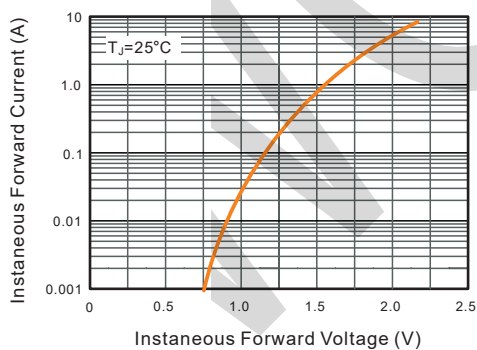
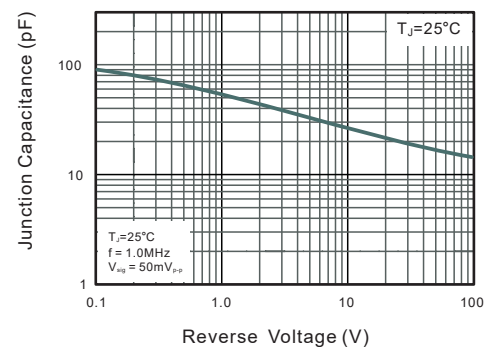
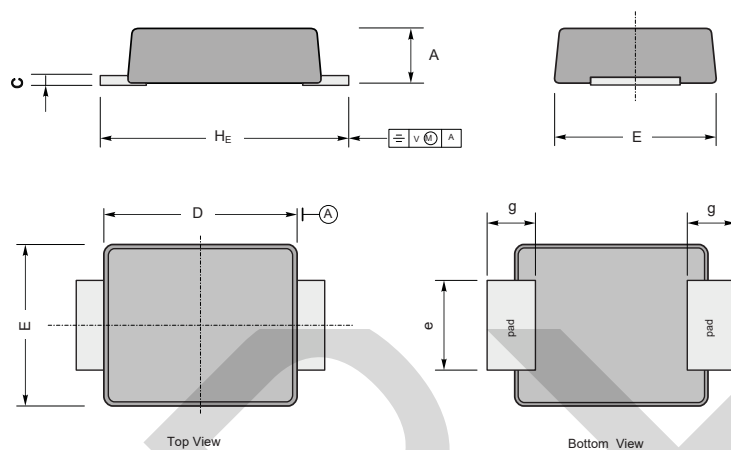


Fig.5 Typical Junction Capacitance



PACKAGE OUTLINE DIMENSIONS

SMBF dimension definitions



UNIT		A	C	D	E	H _E	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		