

Silicon Bridge Rectifiers

F3SPB30K--F3SPB30M

Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High temperature soldering guaranteed:
260°C/10 seconds



- RoHS Compliant

Mechanical Data

- Case: 3SPB molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Leads solderable per MIL-STD-750,
- Polarity: As marked on body

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Characteristic		Symbol	F3SPB30K	F3SPB30M	Units
Peak repetitive reverse voltage		V _R RM	800	1000	V
RMS reverse voltage		V _R MS	560	700	V
DC blocking voltage		V _D C	800	1000	V
Maximum average forward output current		I _F (AV)	3.0		A
Peak forward surge current, 8.3ms single half-sine-wave	@T _J = 25°C	I _F SM	100		A

Thermal Characteristics

Parameter	Symbol	F3SPB30K	F3SPB30M	Units
Typical thermal resistance per leg (Note 1)	R _θ JA	37		°C/W
	R _θ JC	10.4		
	R _θ JL	7.5		
Operating junction temperature range	T _J	- 55 ---- + 150		°C
Storage temperature range	T _{STG}	- 55 ---- + 150		°C

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

Silicon Bridge Rectifiers

F3SPB30K--F3SPB30M

Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Typ.	Max.	Units	
Maximum instantaneous forward voltage	V _F	I _F =3.0A Per Diode	--	1.3	V	
Maximum Reverse current	I _R	Rated V _R Per Diode	@T _A =25°C	--	10	μ A
			@T _A =125°C	--	200	
Maximum Reverse Recovery Time	trr	I _F =0.5A, I _{RM} =1A, I _{R(REC)} =0.25A	--	250	ns	

Silicon Bridge Rectifiers

F3SPB30K--F3SPB30M

Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

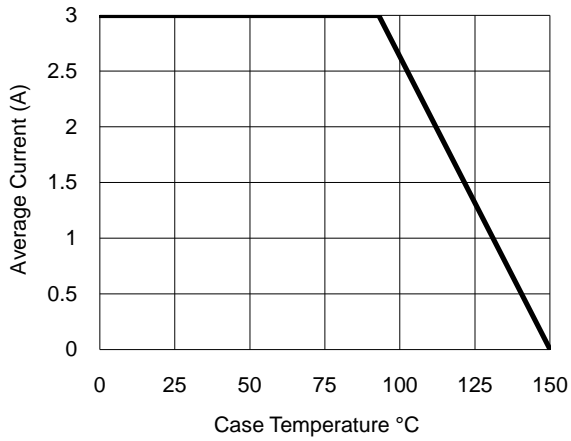


Fig.2- Surge Current Derating Curve

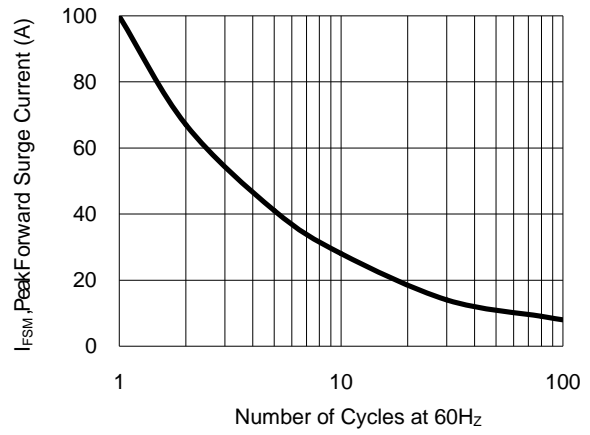


Fig.3- Typical Forward Voltage Characteristic

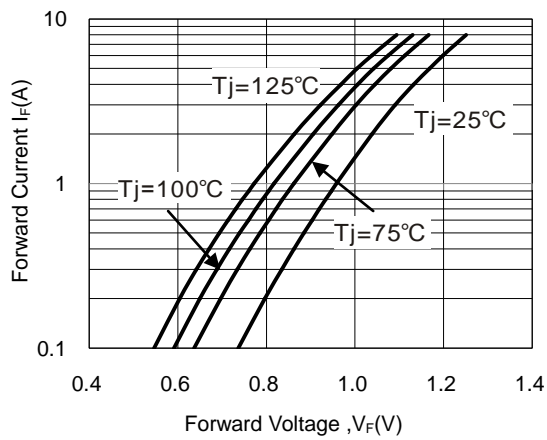
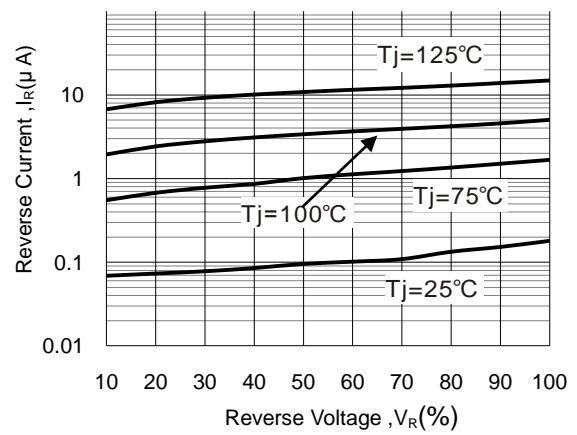


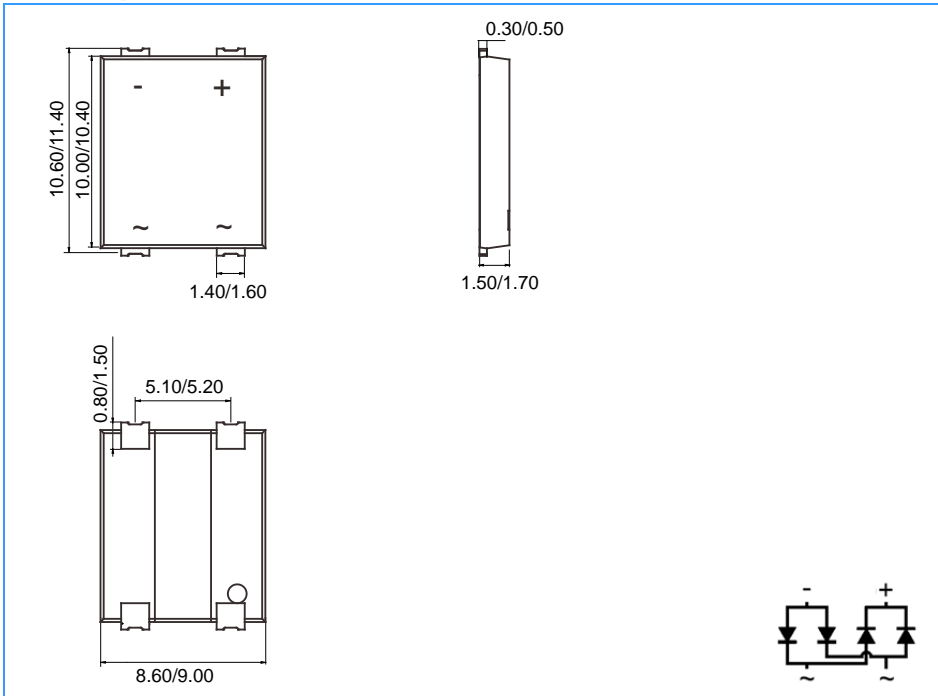
Fig.4- Typical Reverse Characteristic



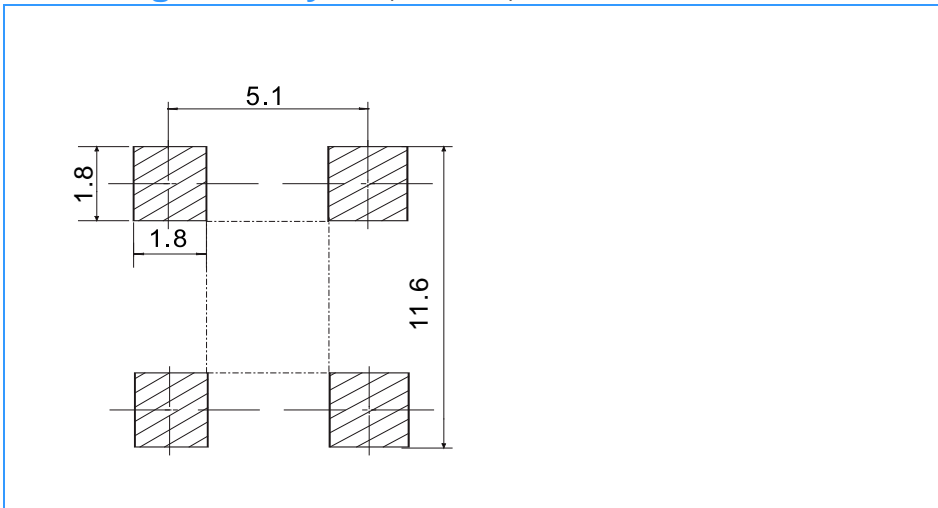
Silicon Bridge Rectifiers

F3SPB30K--F3SPB30M

Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping
F3SPB30K	F3SPB30K	3SPB	1500/Tape&Reel
F3SPB30M	F3SPB30M	3SPB	1500/Tape&Reel