

Surface Mount Fast Recovery Rectifier

RS5ABF~RS5GBF

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
- Polarity: Color band denotes cathode end
- Mounting Position : Any

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

Parameter	Symbols	RS5ABF	RS5BBF	RS5DBF	RS5GBF	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	V
Maximum RMS voltage	VRMS	35	70	140	280	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	V
Maximum Average Forward Rectified Current	I _(AV)	5.0				A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	T _{rr}	150				ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150				A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	186.7				A ² S
Maximum Forward Voltage at 5.0A and 25°C	V _F	1.3				V
Maximum DC Reverse Current @T _A =25 °C at Rated DC Blocking Voltage @T _A =125°C	I _R	2 200				μA
Typical Junction Capacitance (Note1)	C _j	70				pF
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150				°C
Typical thermal resistance (Note 2)	R _{θJ-C}	78				°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- DERATING CURVE OUTPUT RECTIFIED CURRENT

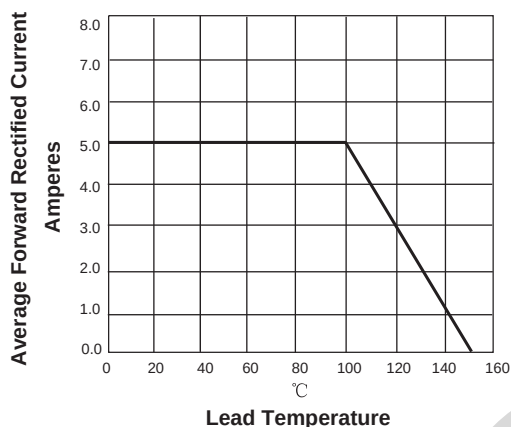


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

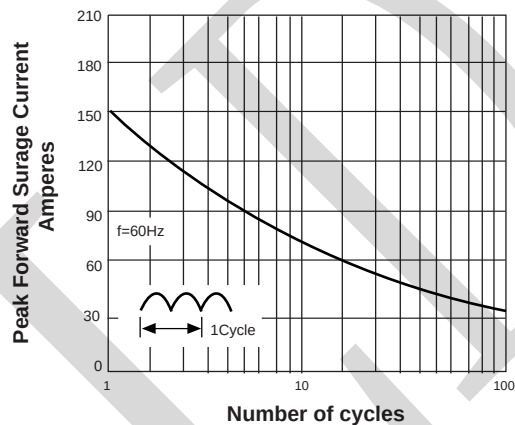


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

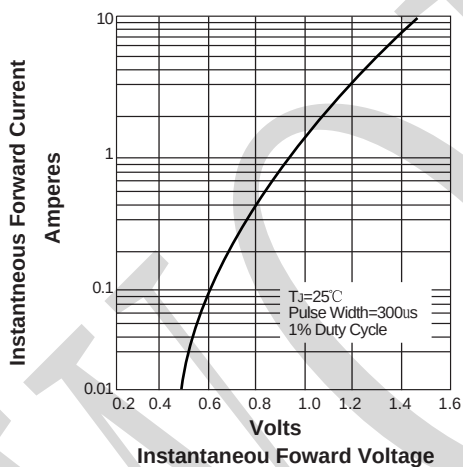
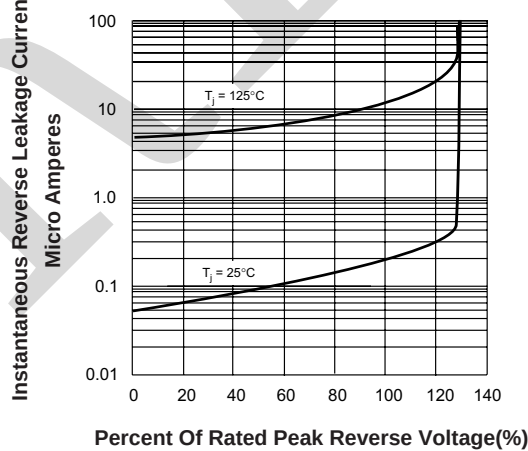
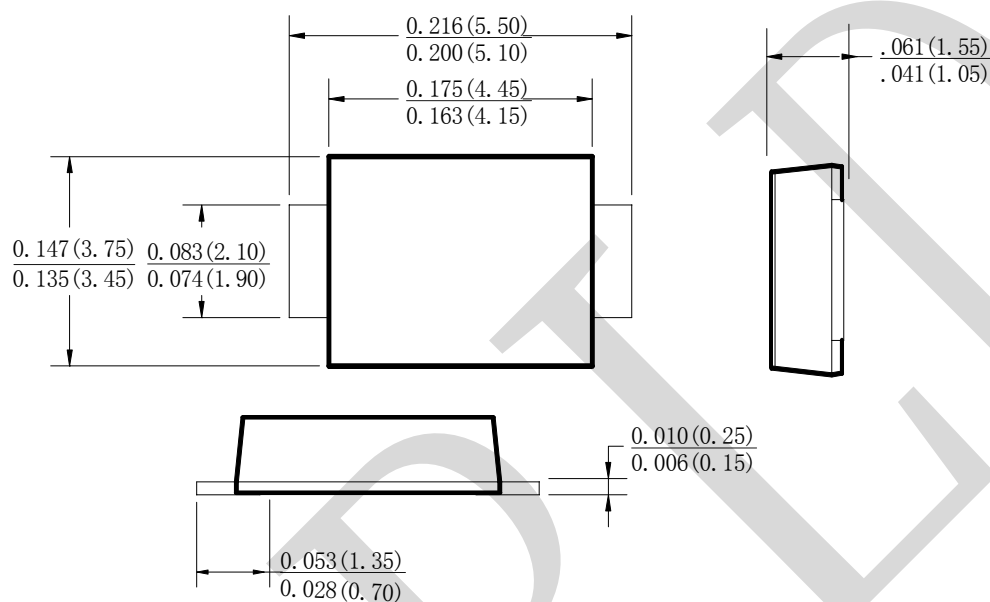


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



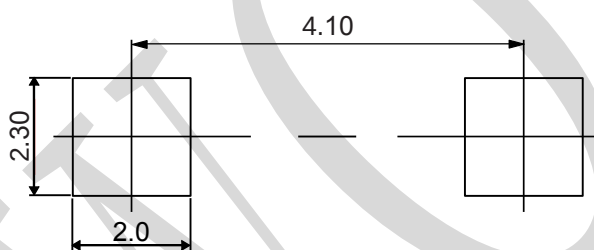
PACKAGE OUTLINE DIMENSIONS

SMBF dimension definitions



Dimensions in inches and (millimeters)

SMBF Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Marking Information



① Product model : RS5AB~RS5GB

② PDC information :

Y X WW H

H: Halogen-free

WW: Week code (01 to 53)

X: Internal identification code

Y: Year code (ex: 0=2020)