

RS07B-M

Surface Mount Fast Rectifiers

Features

- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current
- Metallurgically bonded construction
- High temperature soldering:
- 250°C/10 seconds at terminals
- RoHS compliant package

Mechanical Data

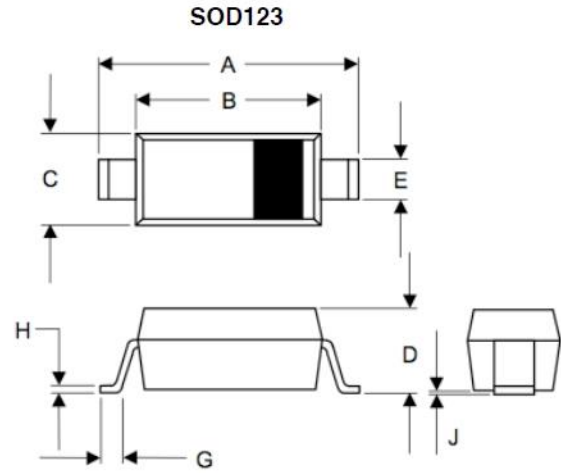
- Case: SOD-123 Molded plastic
- Epoxy: UL94V-O rate flame retardant
- Lead: Lead Formed for Surface Mount
- Polarity: Color band denotes cathode end
- Mounting position: Any

Packing & Order Information

3,000/Reel



RoHS
COMPLIANT



DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

Graphic symbol



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specific.

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

		RS 07B	RS 07D	RS 07G	RS 07J	RS 07K	RS 07M	Unit
Device marking code		RB	RD	RG	RJ	RK	RM	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum average forward rectified current TA=65 °C (Note1)	$I_{F(AV)}$	0.7						A

RS07B-M

Surface Mount Fast Rectifiers

Rating at 25 °C ambient temperature unless otherwise specific.

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

		RS 07B	RS 07D	RS 07G	RS 07J	RS 07K	RS 07M	Unit
Device marking code		RB	RD	RG	RJ	RK	RM	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load TL=25 °C	I_{FSM}	20						A
Typical thermal resistance (Note2)	$R_{\theta JA}$	180						K/W
Maximum reverse recovery time (Note3)	T_{rr}	150			250	500		ns
Operating Temperature Range	T_J	-55 to +150						°C
Storage Temperature Range	T_J, T_{STG}	-55 to +150						°C

NOTES

1. Averaged over any 20 ms period.
2. Thermal resistance junction to ambient, 6.0 mm 2 copper pads to each terminal.
3. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Min	Typ	Max	Unit
V_F	Maximum instantaneous (NOTE4) Forward voltage at 0.7A	--	--	1.15	V
I_R	Maximum DC reverse current @TA=25°C At rated DC blocking voltage @TA=125°C	--	--	10 50	V
C_j	Typical junction capacitance (NOTE5)	--	4	--	A

NOTES

4. Pulse test: 300µs pulse width, 1% duty cycle.
5. Measured at 1.0MHz and applied average voltage of 4.0V DC.

RS07B-M

Surface Mount Fast Rectifiers

■ RATING AND CHARACTERISTIC CURVES

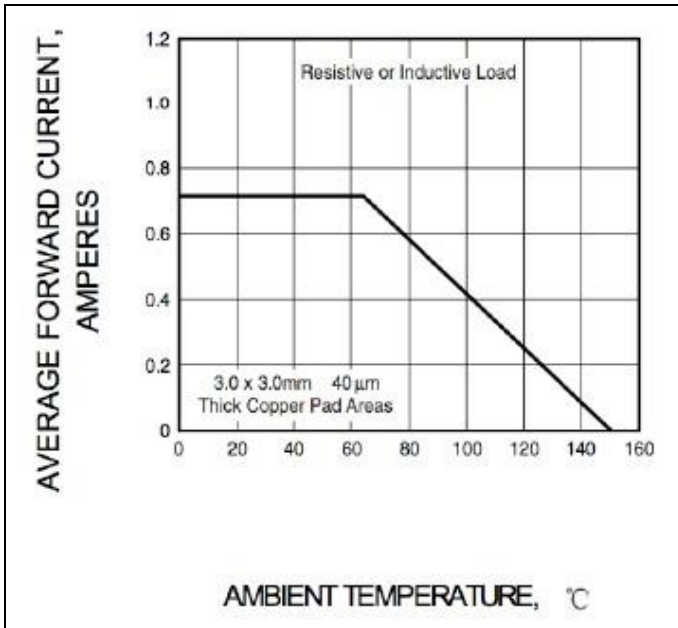


FIG. 1 FORWARD DERATING CURVE

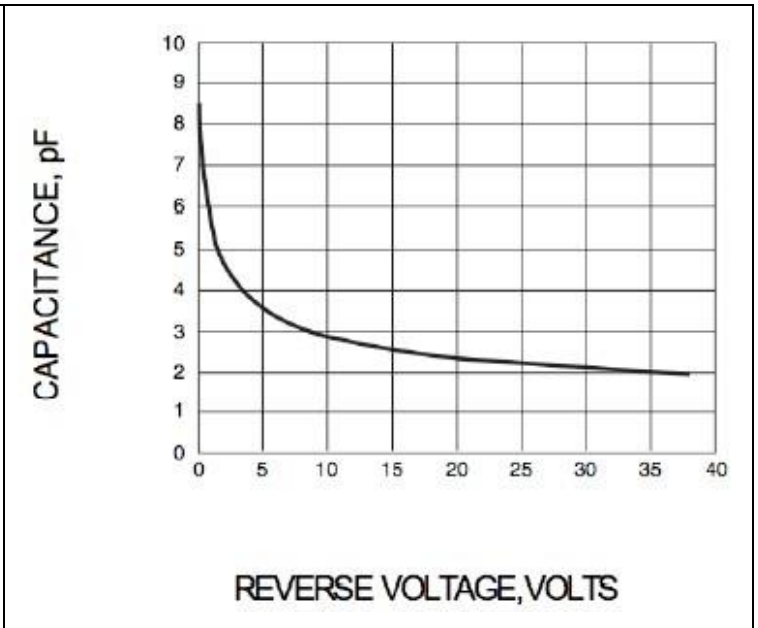


FIG. 2 PEAK JUNCTION CAPACITANCE

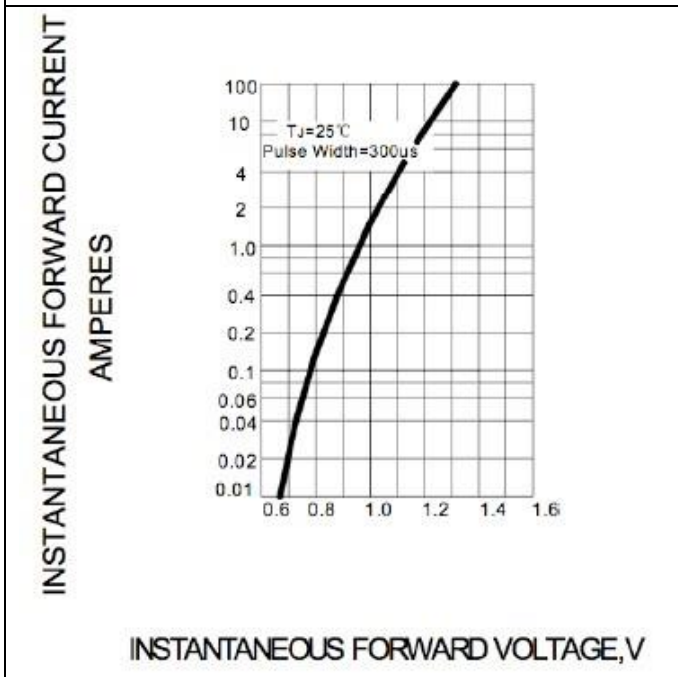


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

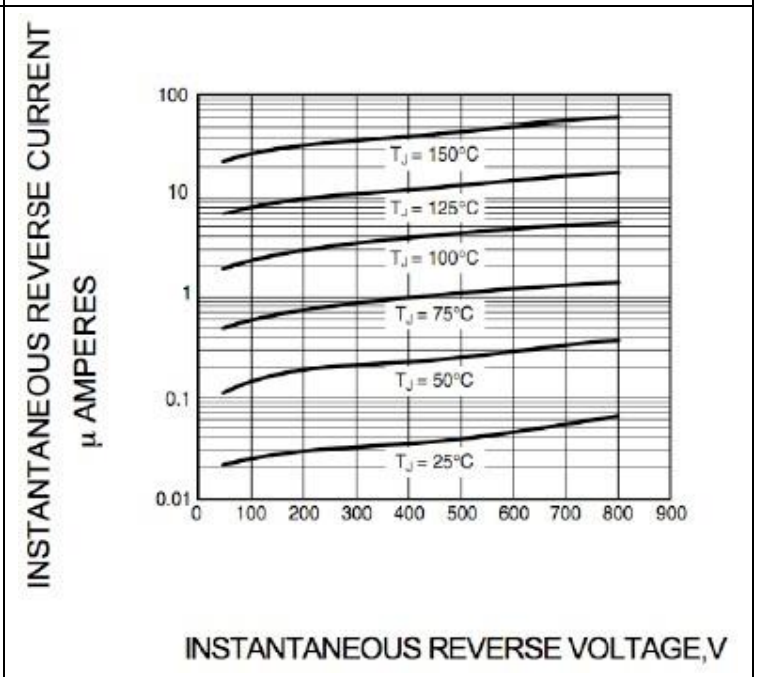


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

RS07B-M

Surface Mount Fast Rectifiers

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.