

ABS Plastic-Encapsulate Bridge Rectifier

Features

- Ideal for printed circuit board
- Small size, simple installation
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

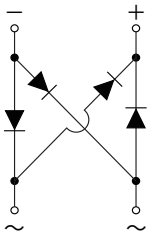
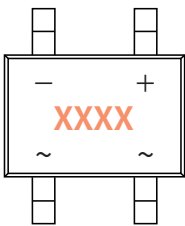
Applications

General purpose 1 phase Bridgerectifier applications

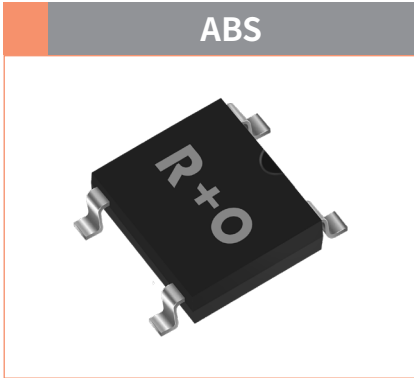
Mechanical Data

- Case: ABS
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram



Reverse Voltage
50-1000 V
Forward Current
1.0 Ampere



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RABS005	RABS01	RABS02	RABS04	RABS06	RABS08	RABS10
Device marking code			RABS005	RABS01	RABS02	RABS04	RABS06	RABS08	RABS10
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	1.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	30						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	3.7						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	75						
	$R_{\theta J-L}$	°C /W	18						

● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	RABS005	RABS01	RABS02	RABS04	RABS06	RABS08	RABS10
Maximum instantaneous forward voltage	I _F =1.0A	V _F	V	1.3						
Maximum DC reverse currentat rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	μA	5.0						
	V _R =V _{DC} , T _A =100°C	I _{R2}		200						
Maximum Reverse Recovery Time	I _F =0.5A,I _R =1.0A,I _R =0.25A	T _{RR}	nS	150				350	500	
Typical junction capacitance	4.0V DC,1MHz	C _J	pF	15						

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

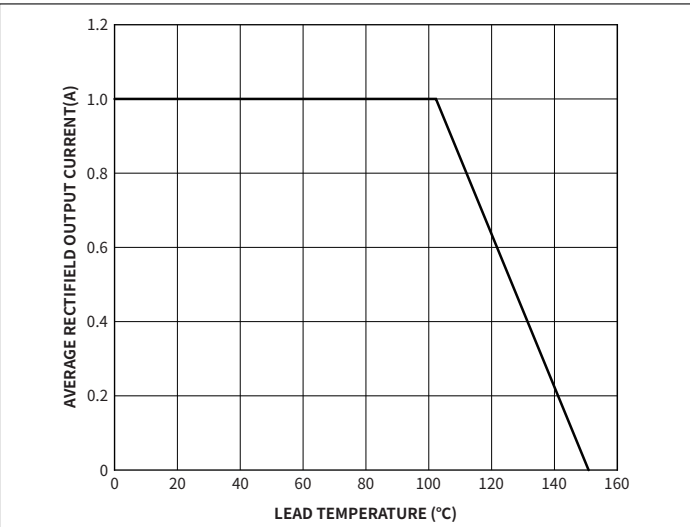


Fig.1 Forward Current Derating Curve

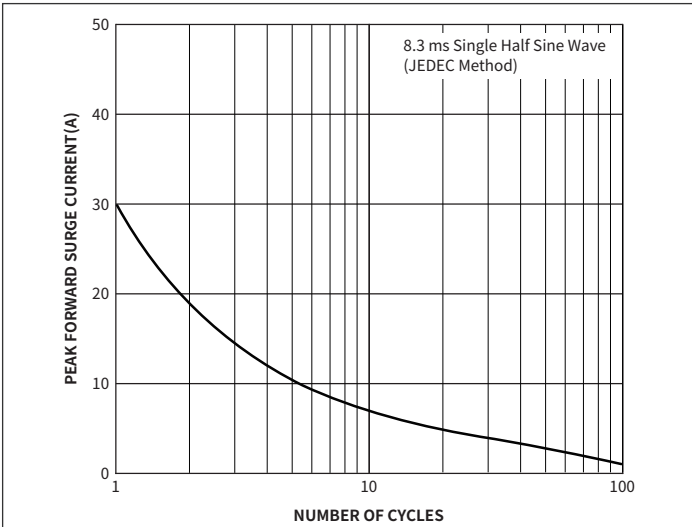


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

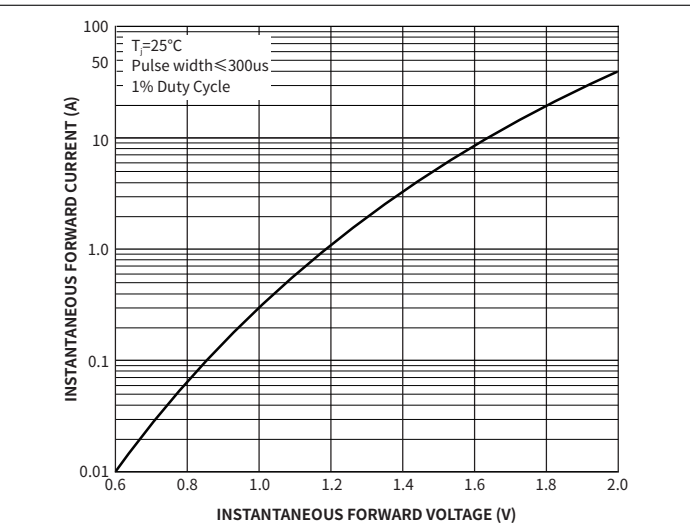


Fig.3 Typical Forward Voltage

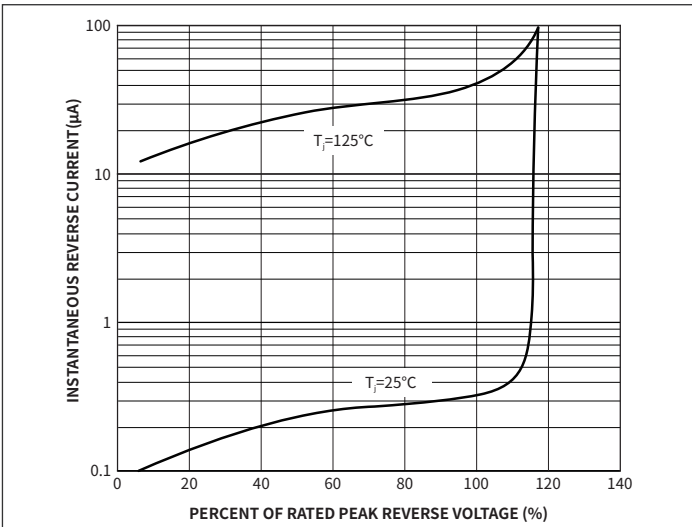


Fig.4 Typical Reverse Characteristics

RABS005 THRU RABS10

ABS 1.0 AMP Plastic-Encapsulate Bridge Rectifier

● Ordering Information

PACKAGE	PACKAGE CODE	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
ABS	R3	5000	10000	100000	13"

● Package Outline Dimensions (ABS)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.25	1.45	0.049	0.057
A1	-	0.2	-	0.008
B	3.9	4.1	0.126	0.141
B1	0.5	0.8	0.02	0.031
C	0.15	0.35	0.006	0.014
D	4.8	5.1	0.197	0.201
E	4.2	4.6	0.165	0.181
F	0.3	0.8	0.012	0.031
G	6.2	7.0	0.244	0.275

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	5.72	5.9	0.225	0.232
N	4.0	4.2	0.157	0.165
Y	1.0	1.2	0.039	0.047
X	0.9	1.1	0.035	0.043