RABS20M

Ultrasoft Recovery Bridge

ABS Package

Features

- Ultrasoft recovery
- low I_{RRM}
- low VF
- High V_{RRM}
- Special frame design for heat dissipation

Benefits

- Reduced EMI
- Reduced power loss and switching transistor
- Reduced snubbing

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

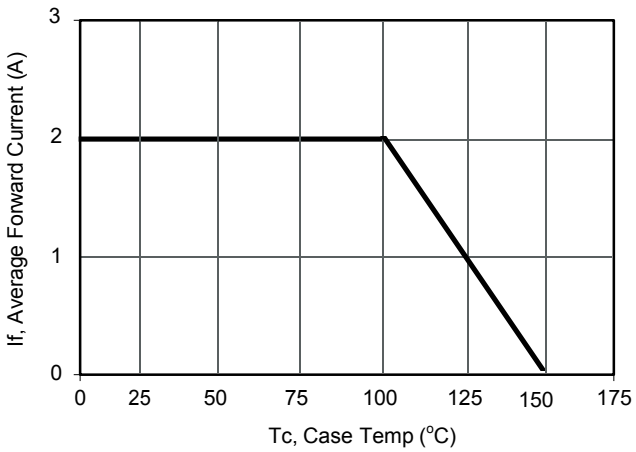
Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

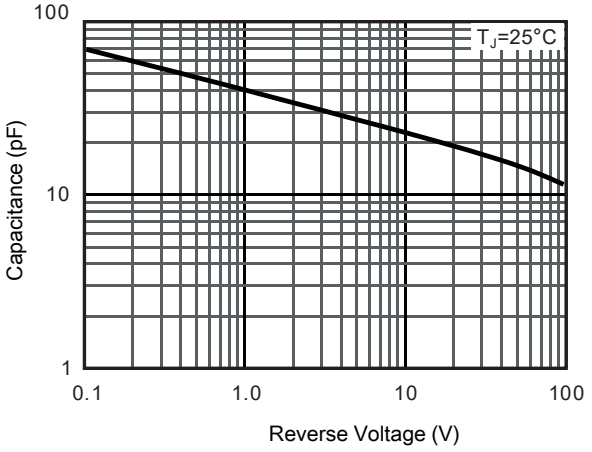
Parameter	Symbols	RABS20M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current	I_O	2.0	A
Reverse Recovery Time.IF=0.5A,IR=1A,IRR=0.25A	Trr	350	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	60	A
I^2t rating for fusing (1ms< t < 10ms)	I^2t	24.5	A^2S
Maximum Forward Voltage at 1.0 A	V_F	1.0	V
Maximum DC Reverse Current @T_A=25 °C at Rated DC Blocking Voltage @T_A=125 °C	I_R	5 100	μA
Typical Junction Capacitance (Note1)	C_j	40	pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

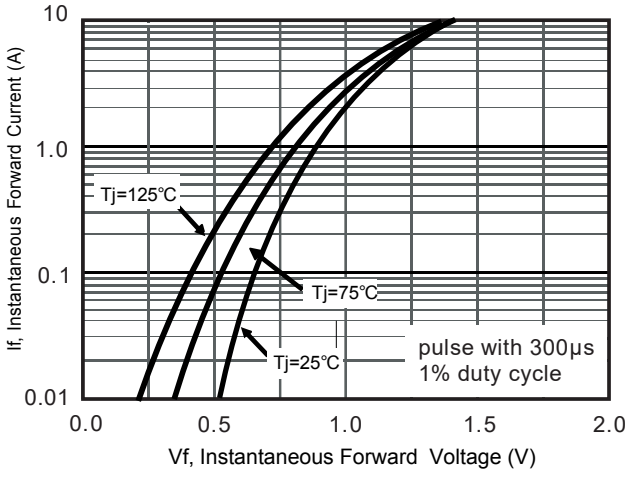
Characteristic Curves (T_A=25 ℃ unless otherwise noted)



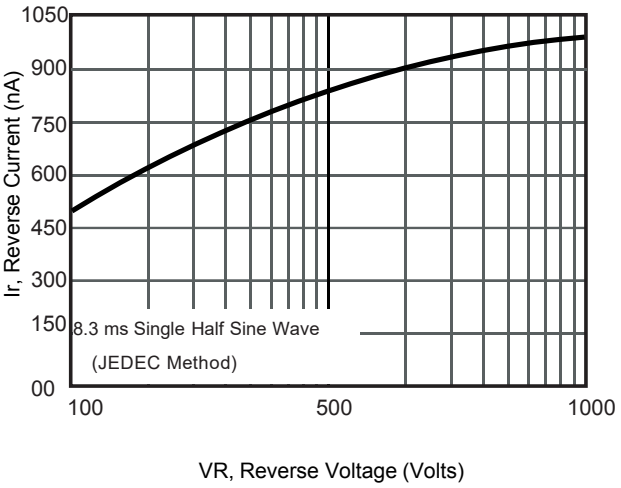
Current Derating, Case



Typical Junction Capacitance



Typical Forward Voltage

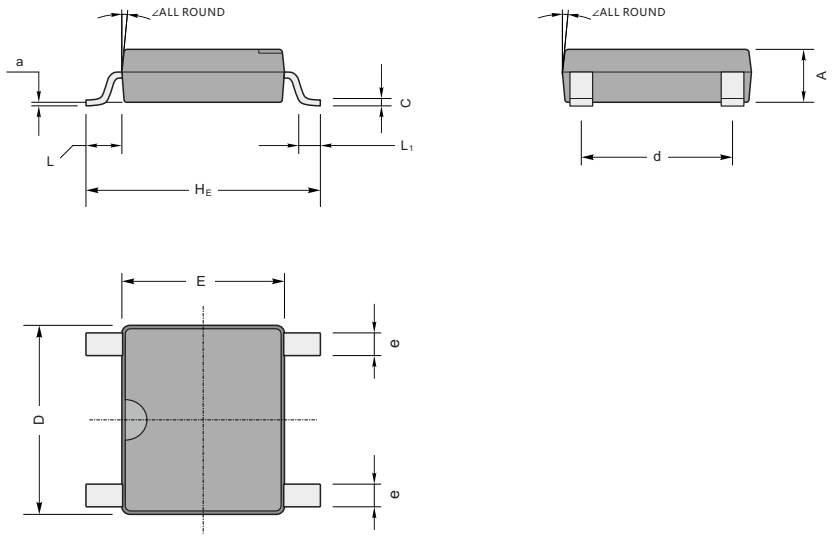


Typical Reverse Current

PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

ABS



ABS mechanical data

UNIT		A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	max	1.3	0.25	5.2	4.5	6.5	4.2	0.7	0.95	0.6	0.2	7°
	min	1.0	0.15	4.9	4.2	6.0	3.8	0.5				
mil	max	51	8.7	205	177	256	165	28	37	24	8	
	min	39	5.9	193	166	236	150	20				

The recommended mounting pad size