

**GLASS PASSIVATED  
SURFACE MOUNT BRIDGE RECTIFIER**

**REVERSE VOLTAGE – 1000 Volts  
FORWARD CURRENT – 2 Amperes**

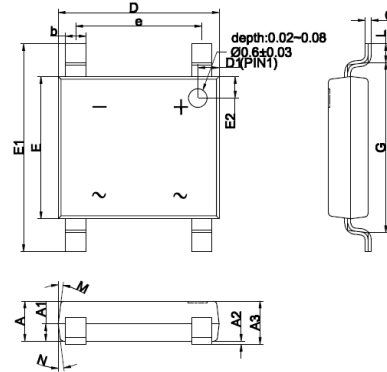
**FEATURES**

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique

**MECHANICAL DATA**

- Case Material: “Green” molding compound, UL flammability classification 94V-0,(No Br. Sb. Cl.) “Halogen-free”
- UL recognized file # E364304
- Polarity indicator: As marked on the body
- Weight: 98 mg ( Approximate)
- Marking Code: ABS20M

**ABS**



ABS		
DIM	MIN	MAX
A	1.20	1.30
A1	0.43	0.63
A2	0.00	0.10
A3	1.20	1.40
b	0.50	0.80
C	0.10	0.30
D	4.85	5.25
D1	0.45	0.85
e	3.80	4.20
E	4.25	4.65
E1	6.40	6.80
E2	0.45	0.85
G	5.20	5.60
L	0.40	0.80
M	7° TYP.	
N	7° TYP.	
All dimension in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATINGS**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	1000	V
Maximum DC blocking voltage	$V_{DC}$	1000	V
Average rectified output current per device	$I_{(AV)}$	2	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	55	A
	@ $T_A=25^\circ\text{C}$	44	
	@ $T_A=125^\circ\text{C}$ (Note 1)		
Peak forward surge current 1ms single half sine-wave superimposed on rated load	$I_{FSM}$	110	A
	@ $T_A=25^\circ\text{C}$	88	
	@ $T_A=125^\circ\text{C}$ (Note 1)		
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	10.37	$\text{A}^2\text{S}$
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	MAX.	UNIT
Forward voltage (Note1)	$I_F = 1\text{A}$ $T_A = 25^\circ\text{C}$	$V_F$	0.95	V
Leakage current	$V_R = 1000\text{V}$ $T_A = 25^\circ\text{C}$	$I_R$	10	$\mu\text{A}$
	$T_A = 125^\circ\text{C}$ (Note1)		100	
Typical junction capacitance (Note 2)		$C_J$	12.34	$\text{pF}$

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 3)	$R_{thJC}$	12	$^\circ\text{C/W}$
	$R_{thJL}$	15.5	
	$R_{thJA}$	26	

**Note :**

- (1) Perform static test after the temperature of oven is steady 20 minutes.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (3) Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 1oz/ft<sup>2</sup> 30mm \*30mm copper pad per pin.

REV.1, Sep.-2016, KBDA37

# RATING AND CHARACTERISTIC CURVES ABS20M



FIG.1- FORWARD CURRENT DERATING CURVE

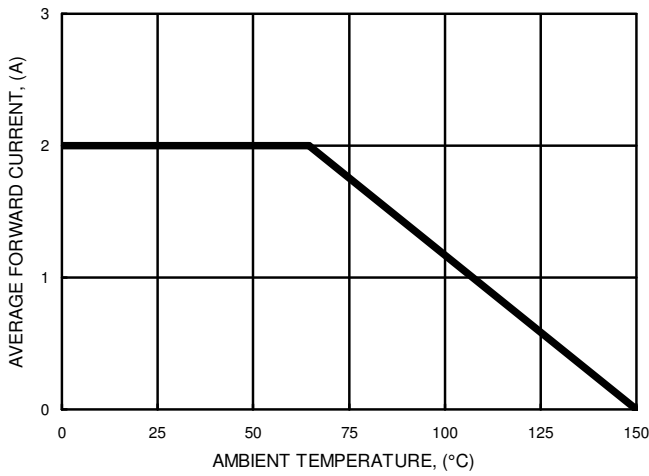


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

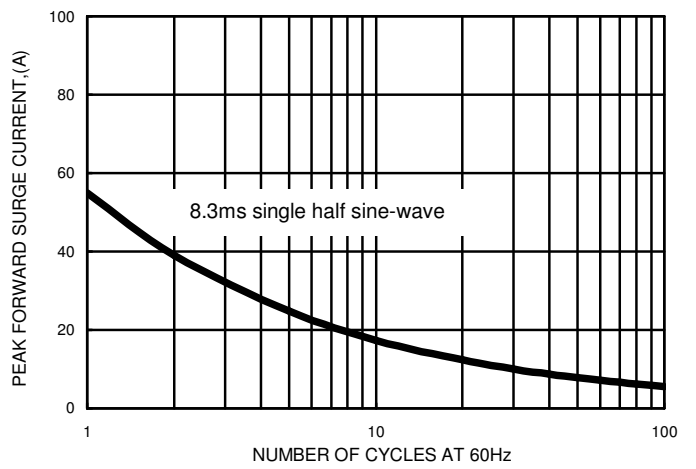


FIG.3- TYPICAL FORWARD CHARACTERISTICS

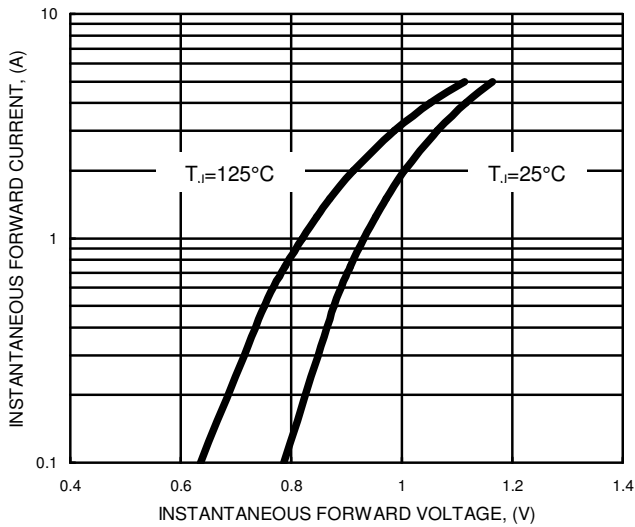


FIG.4- TYPICAL JUNCTION CAPACITANCE

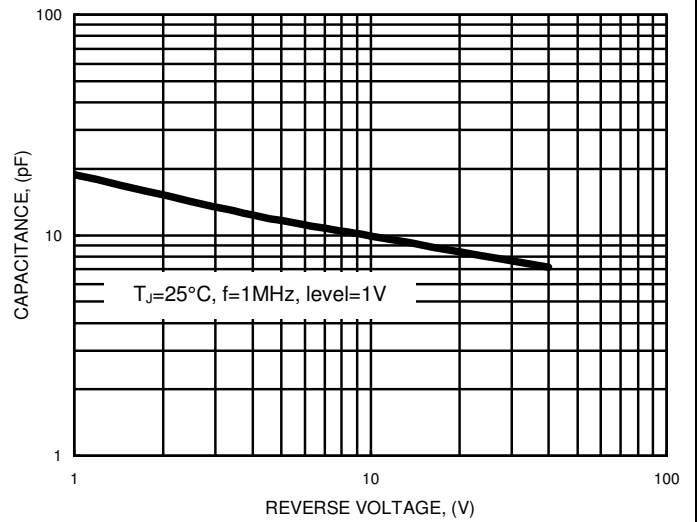
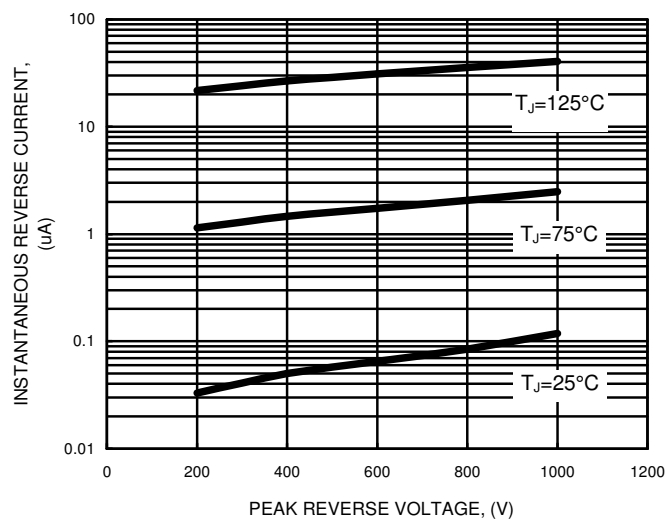


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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