BORN SEMICONDUCTOR

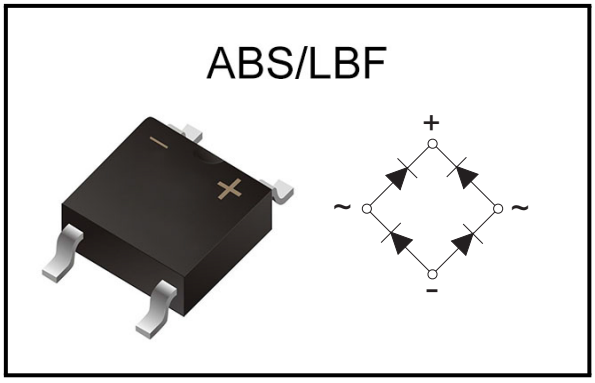
ABS2-ABS10

Rectifier Bridge

Features

- Glass Passivated Chip Junction
- Reverse Voltage 200 to 1000 V
- Forward Current 0.8A
- High surge current capability
- Designed for Surface Mount Application

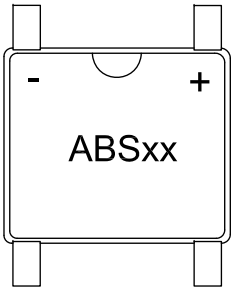
Package



Description

- Case: molded plastic
- Polarity: As marked on body
- Package: ABS/LBF Plastic Package

Making Code



Ordering information

Part Number	ABS2	ABS4	ABS6	ABS8	ABS10
Marking	ABS2	ABS4	ABS6	ABS8	ABS10
Base qty	5K	5K	5K	5K	5K

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ABS2-ABS10

Rectifier Bridge

Maximum Ratings (@T_A=25°C unless otherwise noted)

Symbol	Parameter	ABS2	ABS4	ABS6	ABS8	ABS10	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Voltage	140	280	420	560	700	V
V_{DC}	Maximum DC Blocking Voltage	200	400	600	800	1000	V
$I_{F(AV)}$	Max.Average Forward Rectified Current on glass-epoxy On aluminum substrate	0.8 1.0					A
I_{FSM}	Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load(JEDEC Method)	30					A
V_F	Maximum Instantaneous Forward Voltage at 0.8A (Note1)	1.0					V
I^2T	Rating For Fusing(t<8.3ms)	3.74					
I_R	Maximum DC Reverse Current T_A = 25°C at Rated DC Blocking Voltage T_A = 125°C	10 150					uA
$R_{\theta JL}$	Typical Thermal Resistance	25					°C/W
$R_{\theta JA}$		80					
T_J	Operating Temperature Range	-55 to +150					°C
T_{STG}	Storage Temperature Range	-55 to +150					

Note1:Pulse test with PW=300usec,1% Duty Cycle

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ABS2-ABS10

Rectifier Bridge

Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Maximum Forward Current Derating Curve

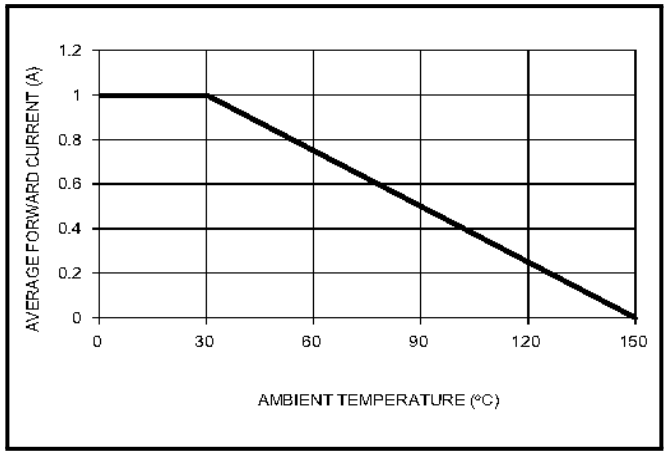


Figure 2: Typical Reverse Characteristics

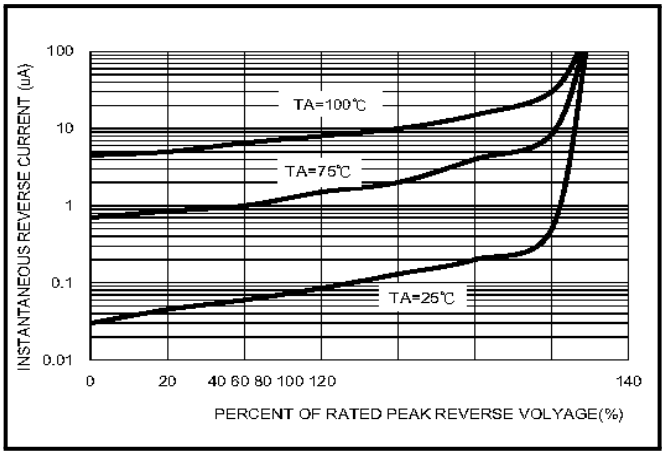


Figure 3: Maximum Non-Repetitive Forward Surge Current

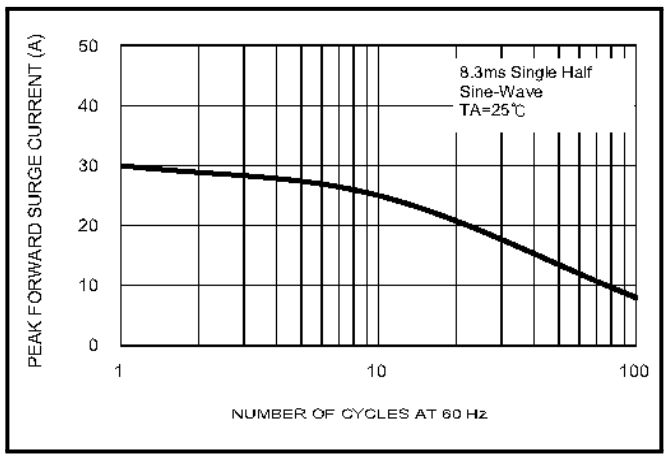


Figure 4: Typical Junction Capacitance

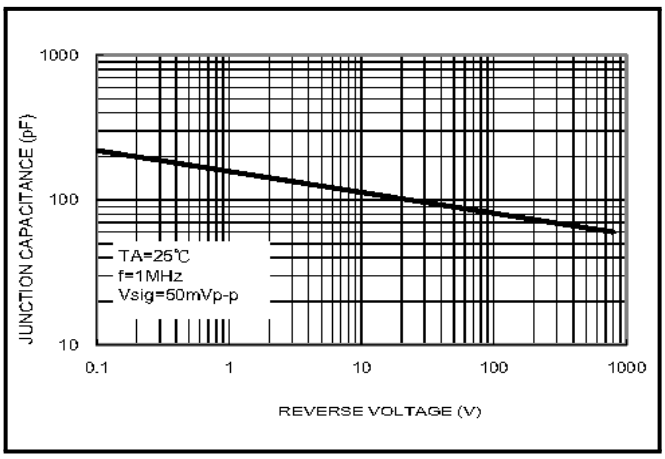
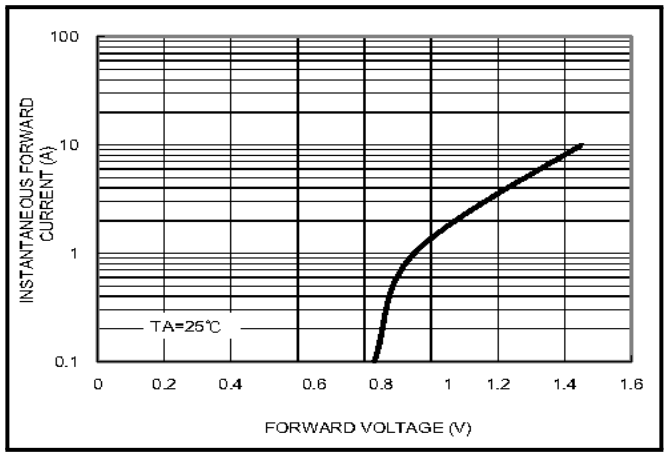


Figure 5: Typical Forward Characterisitics

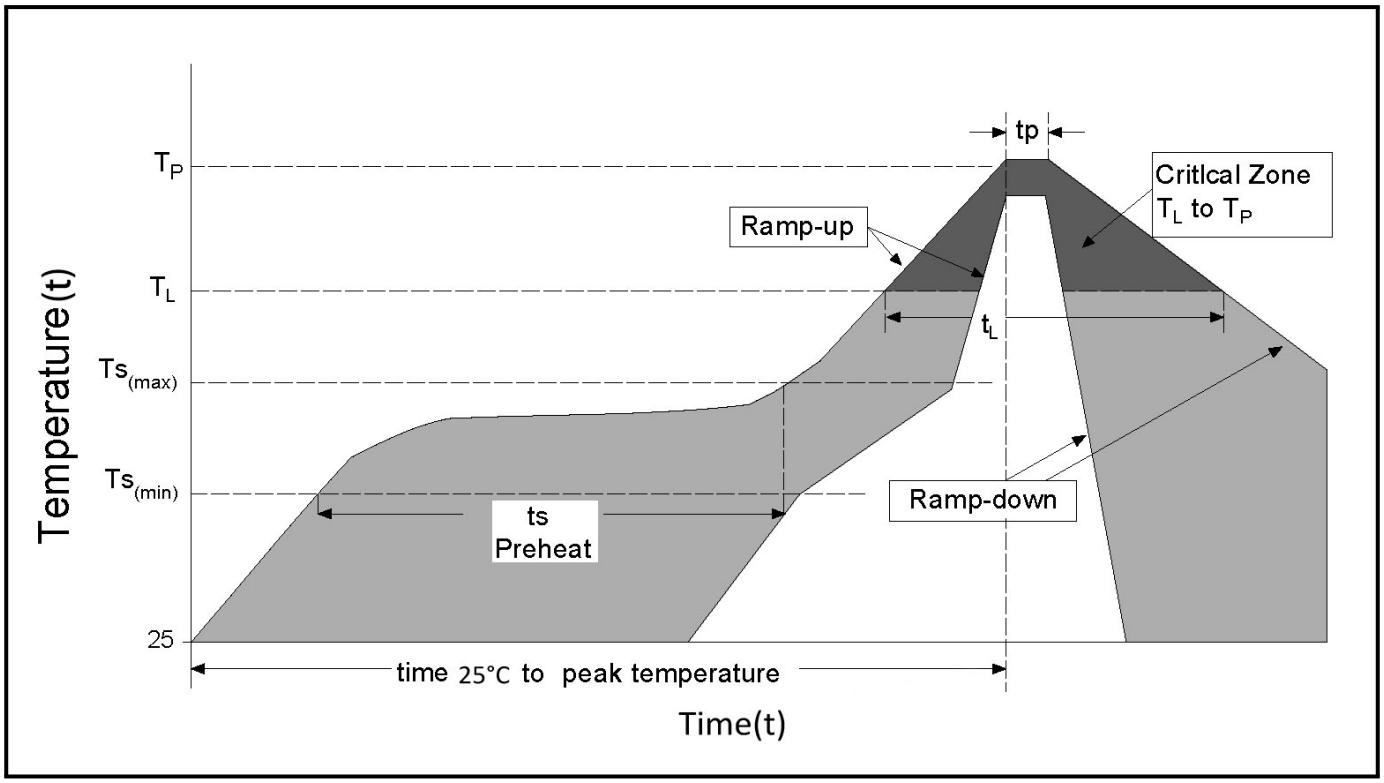


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ABS2-ABS10

Rectifier Bridge

Soldering Parameters



Reflow Condition		Lead-free assembly
Pre Heat	- Temperature Min (T_S(min))	150°C
	- Temperature Max (T_S(max))	200°C
	- Time (min to max) (t_S)	60 - 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
T_S(max) to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Time (t_L)	60 -150 secs
Peak Temperature (T_P)		$260^{+0/-5°C}$
Time within 5°C of actual peak Temperature (t_p)		20 - 40 secs
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (t)		8 minutes Max.
Do not exceed		260°C

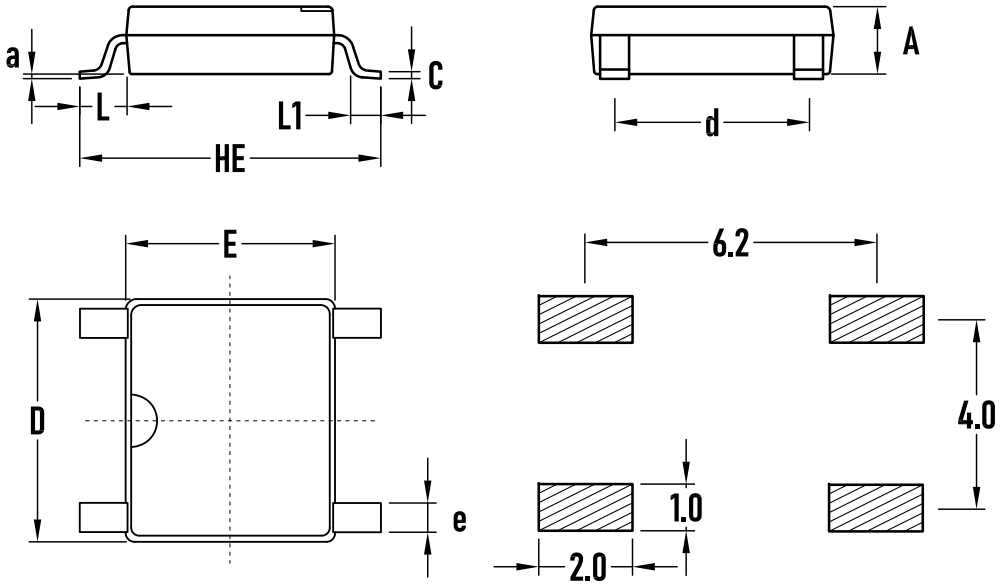
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ABS2-ABS10

Rectifier Bridge

Package Information-ABS/LBF



Dim	MILLIMETER	
	MIN	MAX
A	1.3	1.5
C	0.15	0.22
D	4.9	5.2
E	4.2	4.5
HE	6.0	6.4
d	3.8	4.2
e	0.5	0.7
L	0.95	
L1	0.6	
a	0.2	

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