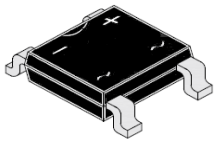
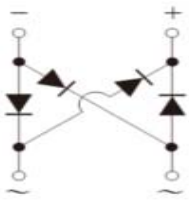
Single Phase 2.0Amp Glass passivated Bridge Rectifiers



ABS



ABS22~ABS210

ABS SMD
Plastic Package
RoHS compliant

FEATURES:

1. The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
2. Idea for printed circuit board
3. Glass passivated Junction chip
4. Low reverse leakage
5. High forward surge current capability
6. High temperature soldering guaranteed 250 C/10 seconds at terminals

ABSOLUTE MAXIMUM RATINGS (Ta = 25 ℃ Unless otherwise specified)

PARAMETER	SYMBOL	ABS22	ABS24	ABS26	ABS28	ABS210	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average Forward Rectified current at T_L = 100°C On glass-epoxy PCB [1]	$I_{(AV)}$	2.0					A
Peak forward surge current, 8.3ms single half sine-wave superimposed On rated load	I_{FSM}	60.0					A
Rating for fusing (t=8.3ms, T_A 25°C)	I^2t	14.9					A^2s
Maximum instantaneous forward voltage at 2.0A	V_F	1.1					V
Maximum DC Reverse current T_A = 25°C at rated DC Blocking voltage T_A = 125°C	I_R	5.0 500					μA
Typical Junction capacitance [2]	C_J	23.0					pF
Typical Thermal resistance	$R_{\theta JA}$	85.0					°C/W
Operating Junctions and storage Temperature Range	T_J, T_{STG}	-55 to +150					°C

Note:

1. Mounted on glass epoxy PC board with 1.3*1.3mm solder pad
2. measured at 1MHz and applied reverse voltage of 4.0V DC

TYPICAL CHARACTERISTICS CURVE

Fig 1: Derating Curve output Rectifier current

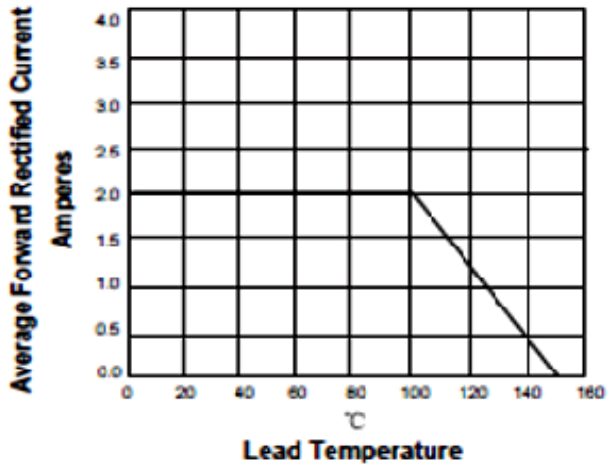


Fig 3: Maximum Non-Repetitive peak Forward surge current per leg

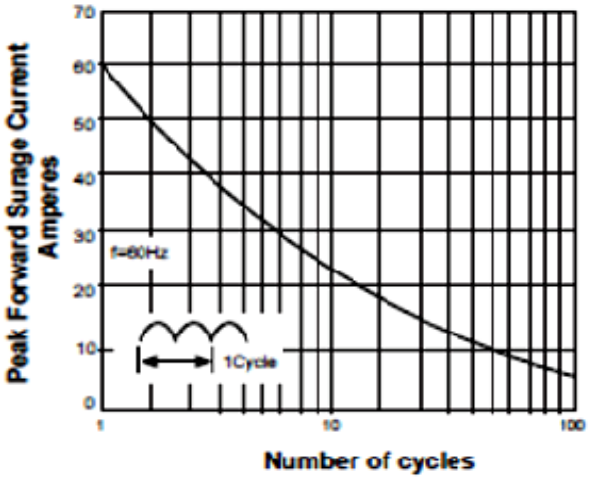


Fig 2: Typical forward voltage Characteristics

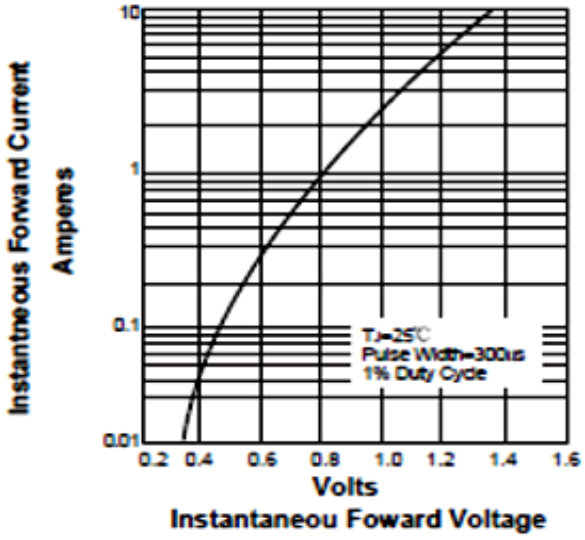
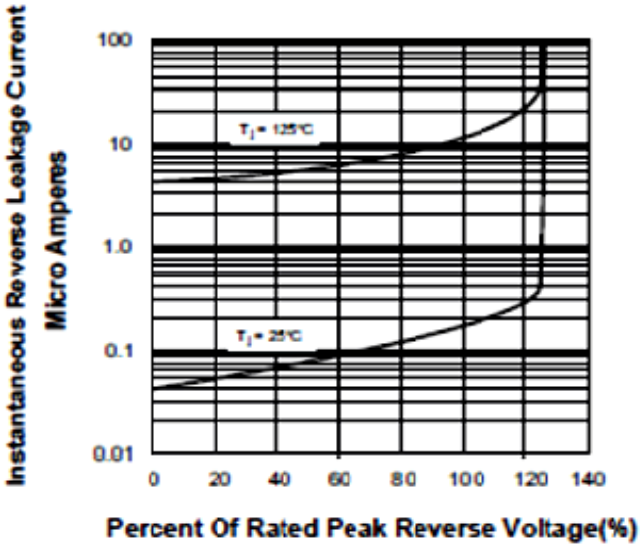
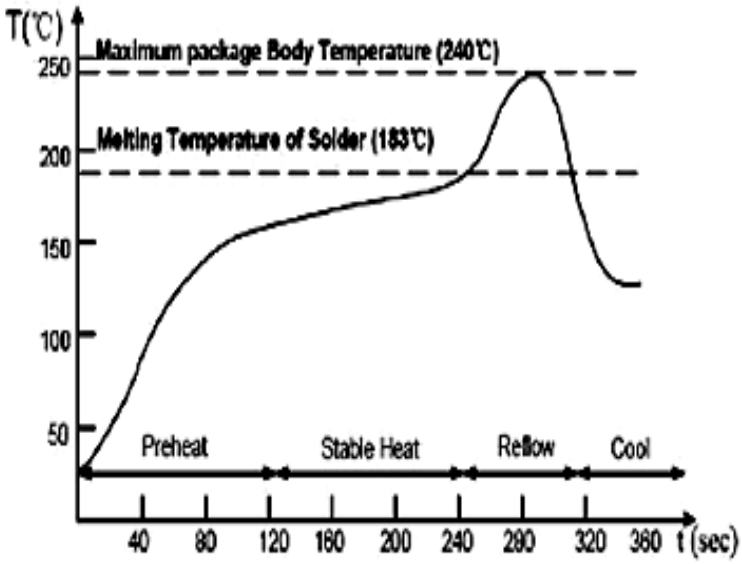


Fig 4: Typical reverse leakage characteristics



Suggested Solder temperature profile

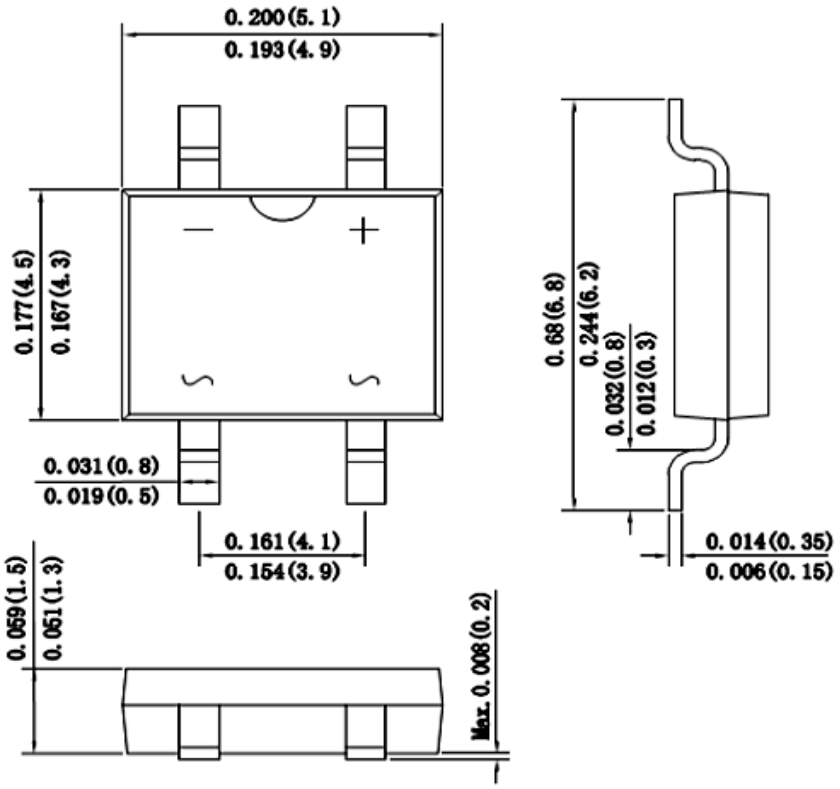


Note

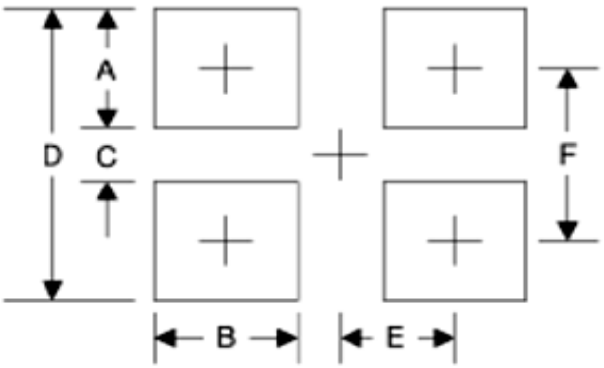
- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

PACKAGE DETAILS

ABS SMD Package



Suggested Pad Layout



SYMBOL	Unit(mm)	Unit(inch)
A	1.5	0.059
B	1.0	0.039
C	4.22	0.166
D	7.22	0.284
E	2.0	0.078
F	5.70	0.224

Mechanical Data

Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750,Method 2026

Polarity : Polarity symbol marking on body

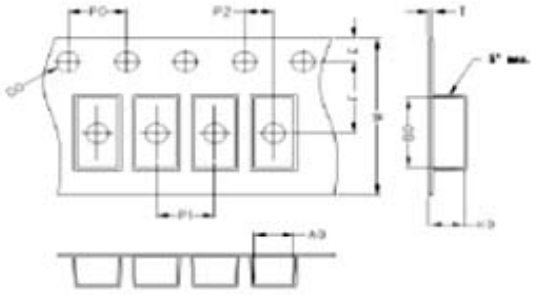
Mounting Position : Any

Weight : 0.0034 ounce, 0.098 grams

ABS22_210
Rev01_05032021EEG

Packaging information

Carrier Dimensions(mm)



A0	B0	K0	D0	E	F
5.31	6.68	1.6	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	8.0	2.0	0.25	12	0.1

Reel Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
ABS	11'	278	3	280	6	355*310*310	48
	13'	330	5	338	10	365*365*360	80

Recommended Product Storage Environment for Discrete Semiconductor Devices

This storage environment assumes that the Diodes and transistors are packed properly inside the original packing supplied by CDIL.

- Temperature 5 °C to 30 °C
- Humidity between 40 to 70 %RH
- Air should be clean.
- Avoid harmful gas or dust.
- Avoid outdoor exposure or storage in areas subject to rain or water spraying .
- Avoid storage in areas subject to corrosive gas or dust. Product shall not be stored in areas exposed to direct sunlight.
- Avoid rapid change of temperature.
- Avoid condensation.
- Mechanical stress such as vibration and impact shall be avoided.
- The product shall not be placed directly on the floor.
- The product shall be stored on a plane area. They should not be turned upside down. They should not be placed against the wall.

Shelf Life of CDIL Products

The shelf life of products is the period from product manufacture to shipment to customers. The product can be unconditionally shipped within this period. The period is defined as 2 years.
If products are stored longer than the shelf life of 2 years the products shall be subjected to quality check as per CDIL quality procedure.
The products are further warranted for another one year after the date of shipment subject to the above conditions in CDIL original packing.

Floor Life of CDIL Products and MSL Level

When the products are opened from the original packing, the floor life will start.
For this, the following JEDEC table may be referred:

JEDEC MSL Level		
Level	**Time**	**Condition**
1	Unlimited	≤30 °C / 85% RH
2	1 Year	≤30 °C / 60% RH
2a	4 Weeks	≤30 °C / 60% RH
3	168 Hours	≤30 °C / 60% RH
4	72 Hours	≤30 °C / 60% RH
5	48 Hours	≤30 °C / 60% RH
5a	24 Hours	≤30 °C / 60% RH
6	Time on Label(TOL)	≤30 °C / 60% RH

Customer Notes

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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