

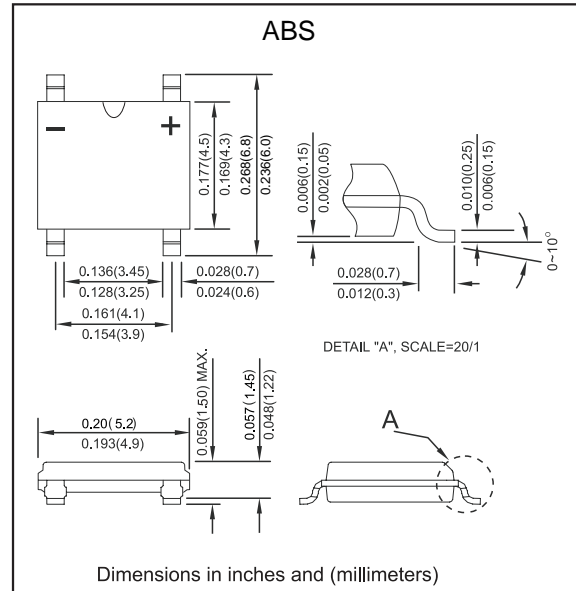
Features

- Surge overload ratings to 50 amperes peak.
- Save space on printed circuit board.
- Ideal for automated replacement.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free part.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, ABS
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT T_a=25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	ABS205	ABS21	ABS22	ABS24	ABS26	ABS28	ABS210	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _J =25°C	I _(AV)	2.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	50							A
Maximum Forward Voltage at 2.0A DC	V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C	I _R	10							μA
		500							
I ² t Rating for Fusing(t<8.3ms)	I ² t	10.37							A ² s
Typical Junction Capacitance Per Element(Note1)	C _J	15							pF
Typical Thermal Resistance (Note2)	R _{θJA}	60							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Note:1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC

2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5*0.5"(13*13mm)copper pads.

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

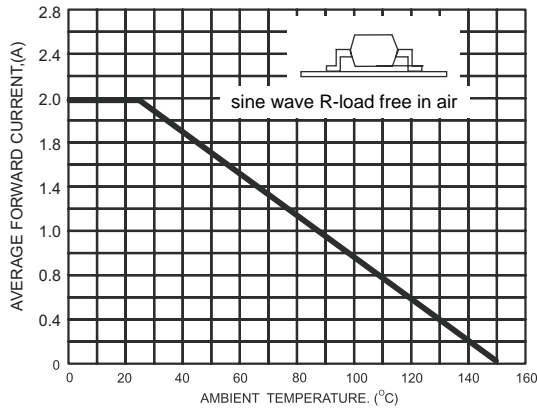


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

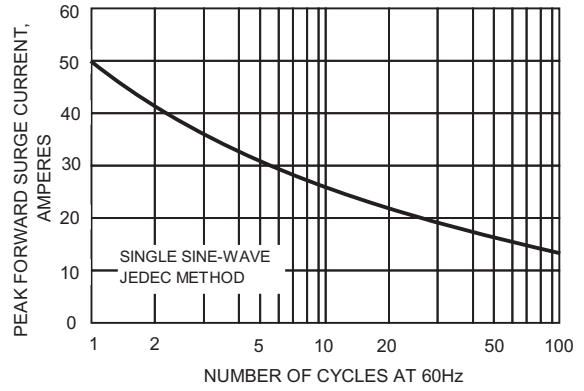


FIG.3-TYPICAL FORWARD CHARACTERISTICS

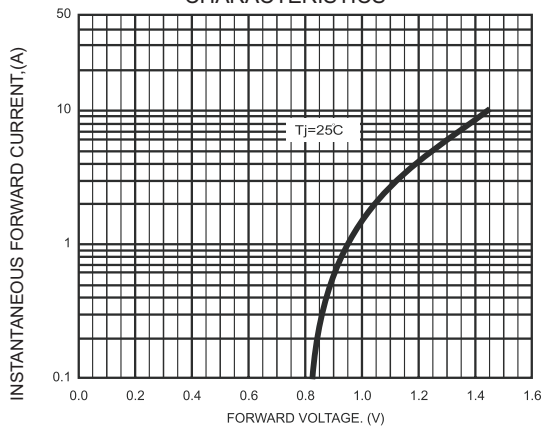


FIG.4-TYPICAL REVERSE CHARACTERISTICS

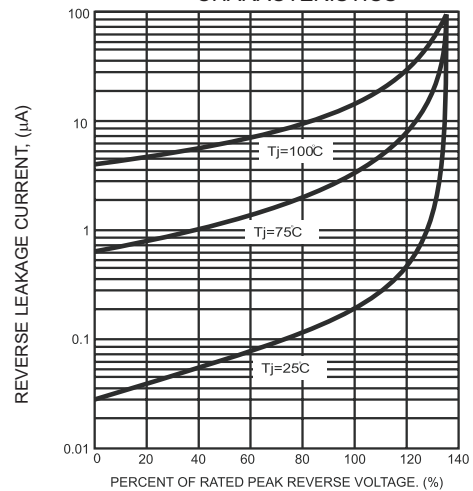
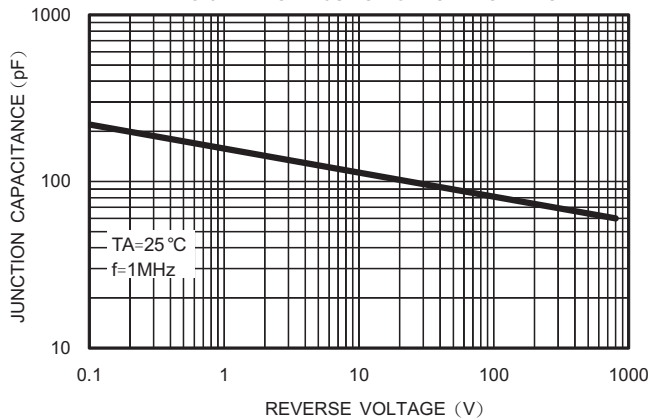
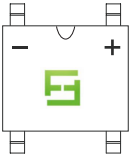
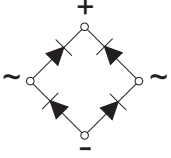


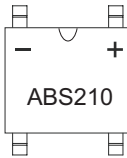
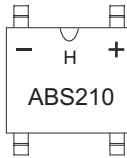
FIG.5-TYPICAL JUNCTION CAPACITANCE



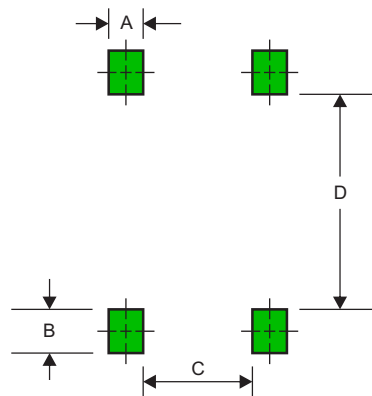
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code	Example	
ABS205	ABS205	1. For Halogen Device	2. For Halogen-free Device
ABS21	ABS21		
ABS22	ABS22		
ABS24	ABS24		
ABS26	ABS26		
ABS28	ABS28		
ABS210	ABS210		

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
ABS	0.024 (0.60)	0.024 (0.60)	0.132 (3.35)	0.193 (4.90)

Suggested thermal profiles for soldering processes

- 1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%
- 2.Reflow soldering of surface-mount devices



3.Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(TL to TP)	<3°C/sec
Preheat -Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(min to max)(ts)	150°C 200°C 60~120sec
Tsmax to TL -Ramp-upRate	<3°C/sec
Time maintained above: -Temperature(TL) -Time(tL)	217°C 60~260sec
Peak Temperature(TP)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(tp)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes