

# ABS10(LS)

## GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIER

**REVERSE VOLTAGE – 1000 Volts  
FORWARD CURRENT – 1 Ampere**

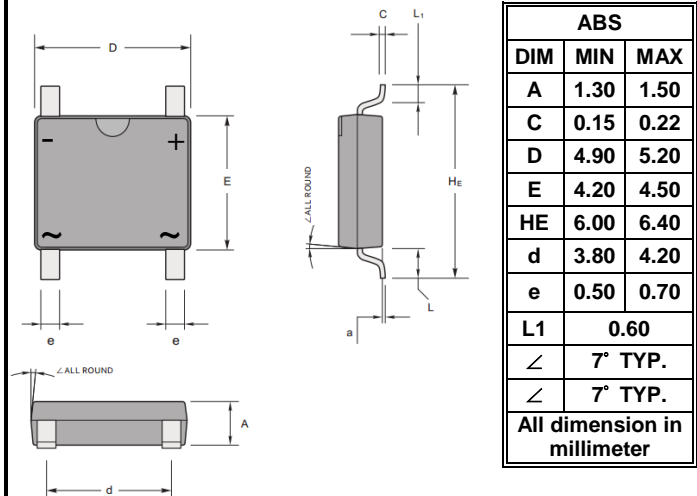
### FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage – 1000V
- Forward Current – 1A
- High Surge Current Capability
- Designed for Surface Mount Application
- UL recognized file#E364304
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

### MECHANICAL DATA

- Package Material: ABS
- Package Material: Green molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.)
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: 88 mg (Approximate)

### ABS



## 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	$I_{(AV)}$	1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @ $T_A=25^\circ\text{C}$	$I_{FSM}$	30	A
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	3.75	A <sup>2</sup> S
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150	°C

### STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Forward voltage	$I_F = 1\text{A}$ $T_A = 25^\circ\text{C}$	$V_F$	1.1	V
Leakage current	$V_R = 1000\text{V}$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	$I_R$	1 500	uA
Typical junction capacitance (Note 4)		$C_J$	13	pF

### THERMAL CHARACTERISTICS

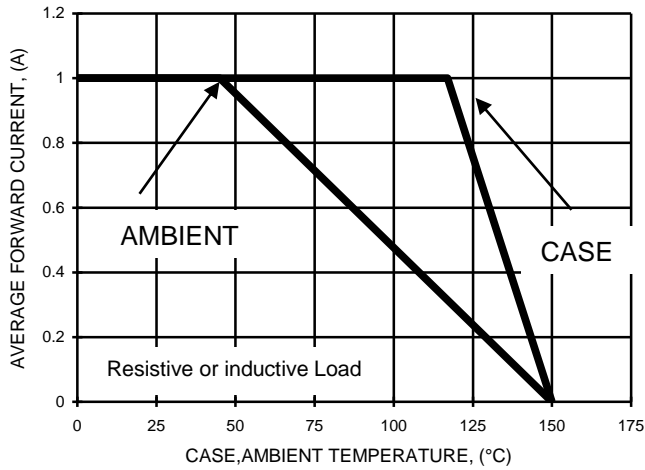
PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 5)	$R_{thJC}$ $R_{thJA}$	20 80	°C/W

#### Notes:

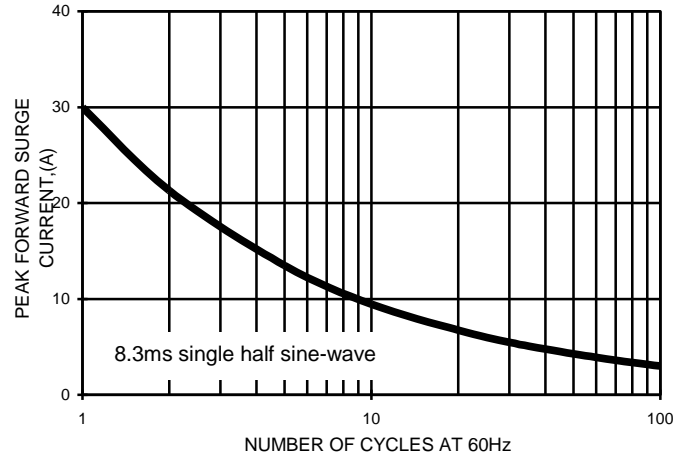
- EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
- See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on glass-epoxy PC board with 1.3mm<sup>2</sup> copper pad.

**RATING AND CHARACTERISTIC CURVES**  
**ABS10**

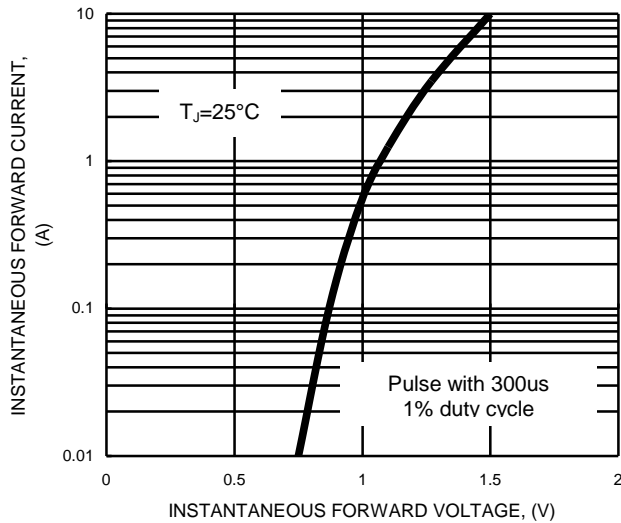
**FIG.1- FORWARD CURRENT DERATING CURVE**



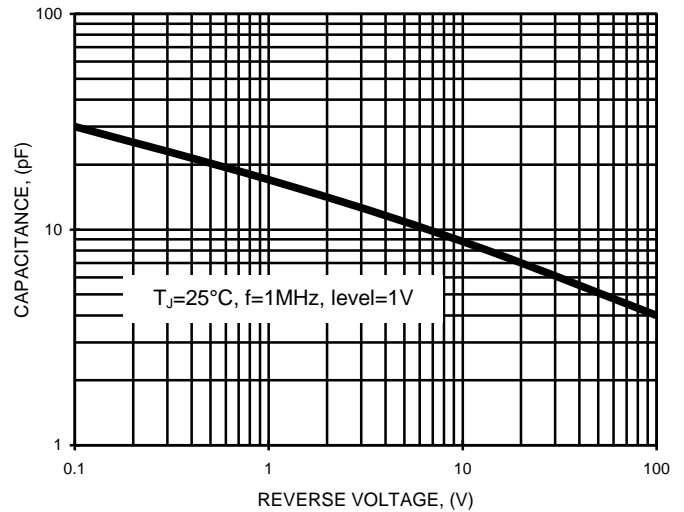
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



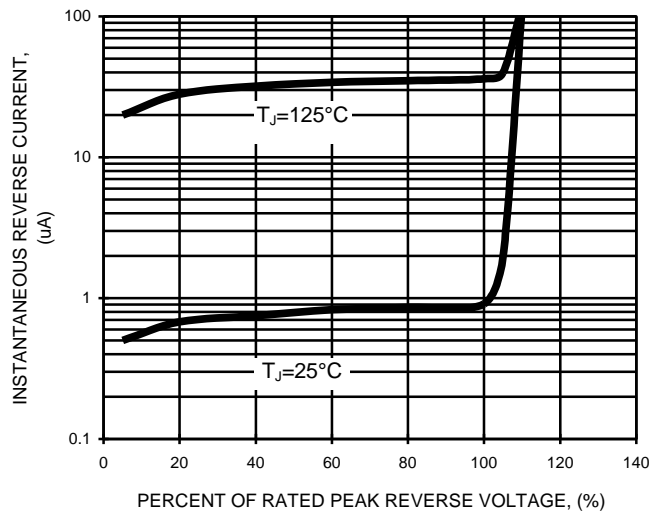
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



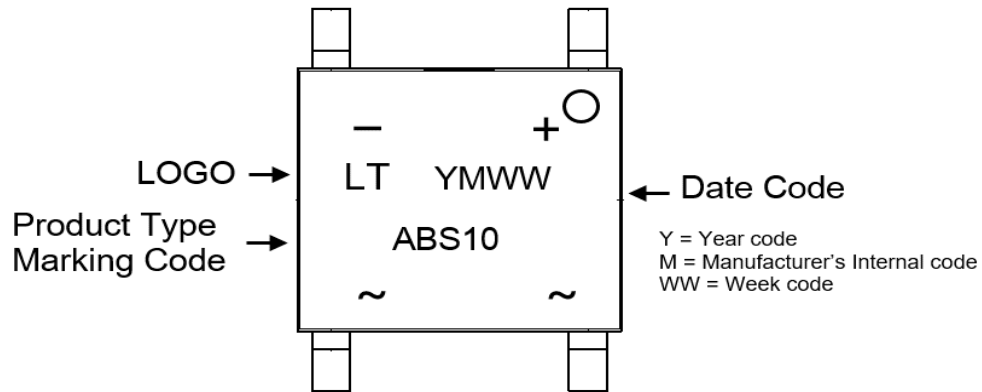
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**Ordering Information:**

Part Number	Package	Packing	
		Qty.	Carrier
ABS10_HF	ABS	5000	Tape & Reel

**Marking Information:**



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