

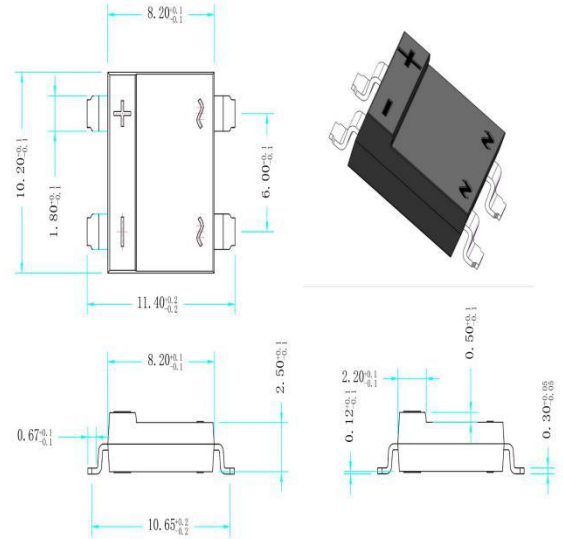
SINGLE BRIDGE RECTIFIERS

Features

HBS

ROHS
COMPLIANT

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
- ◆ 260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC KBP Molded plastic body

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

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.069 ounce, 1.95 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	W	W	W	W	W	W	W	UNITS
		HB4005S	HB401S	HB402S	HB404S	HB406S	HB408S	HB410S	
Marking Code									
Maximum repetitive 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 output rectified current at $T_c=50$ C (Note 2)	$I_{(AV)}$	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120.0							A
Maximum instantaneous forward voltage drop per bridge element at 4A	V_F	1.1							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	10							μA
		0.5							mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	45							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES: 1. Unit mounted on 0.47 x 0.47" (12x12mm) copper pads.

Ratings And Characteristic Curves

FIG.1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMMENT

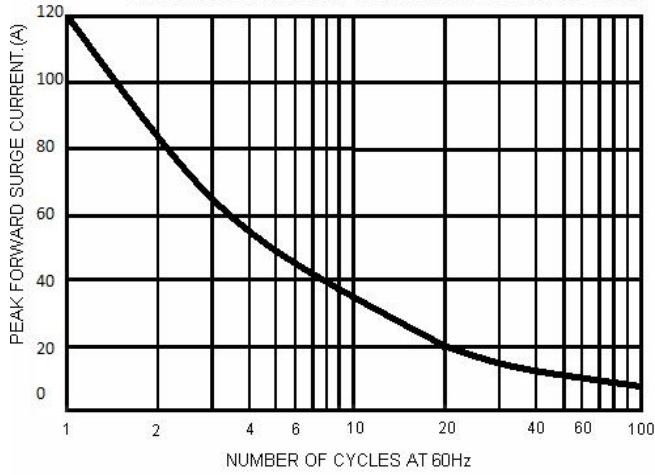


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

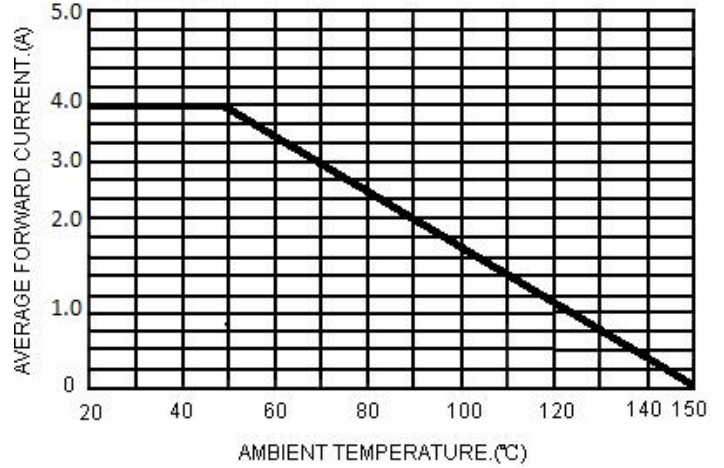


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

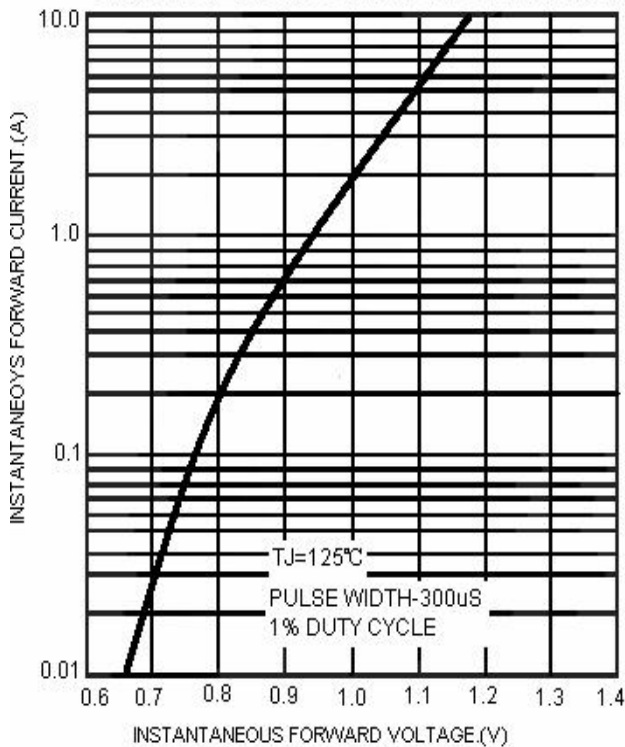
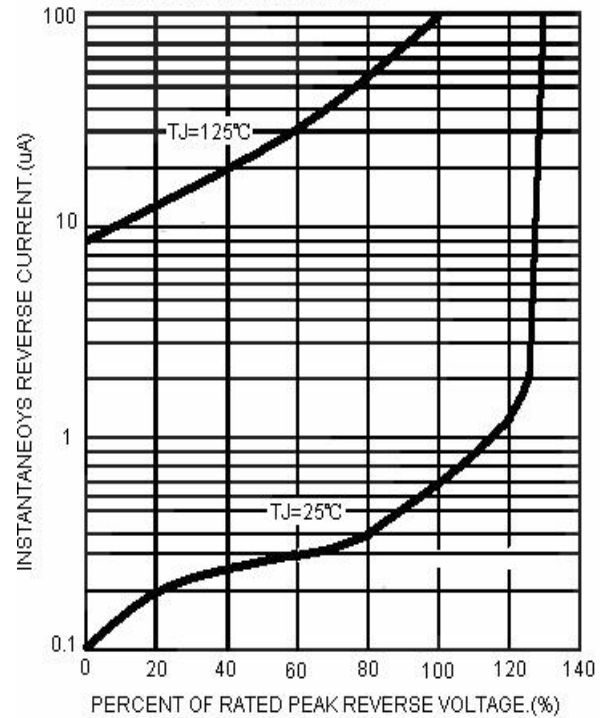


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



The curve above is for reference only.