



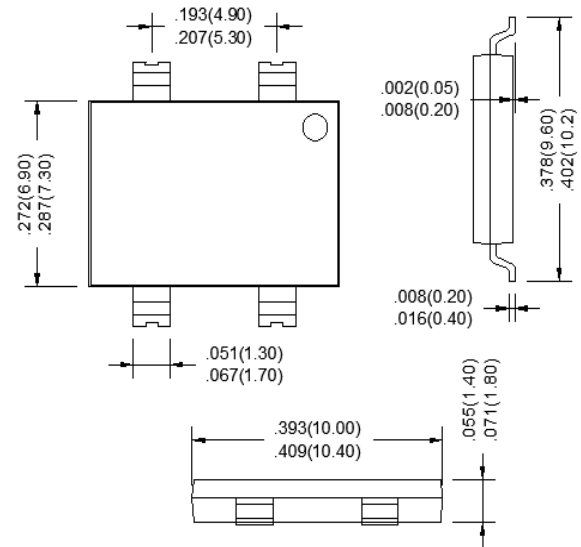
HBS4005 thru HBS410

4.0A Single-Phase GLass Passivated Bridge Rectifiers



Rectifier Reverse Voltage 50V to 1000V

HBS



Dimensions in inches and (millimeters)

Features

- Glass passivated junction
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 120 amperes peak
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs(2.3kg)tension

Mechanical Data

Case:Molded plastic
 Terminals:Platde leads solderable per MIL-STD-750, Method 2026
 Polarity:Polarity symbols molded or Marked on body
 Mounting Position:Any
 Weight:0.015ounce,0.38 grams(approx)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified,Resistive or inductive load,60HZ.
 For Capacitive load derate current by 20%

Parameter	Symbol	HBS 4005	HBS 401	HBS 402	HBS 404	HBS 406	HBS 408	HBS 410	unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input 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 output current at $T_A=40^\circ C$	$I_{F(AV)}$	4.0							A
Instantaneous forward voltage drop per diode	V_F	IF=1.0A	0.84 Typ.				0.89 Max.		V
		IF=2.0A	0.88 Typ.				0.93 Max.		
		IF=4.0A	0.93 Typ.				0.98 Max.		
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A
Maximum DC reverse current at ratde $T_A=25^\circ C$	I_R	5							UA
DC blocking voltage per element $T_A=125^\circ C$		100							
Rating for fusing($t<8.3ms$)	I^2t	59.8							A ² sec
Thermal resistance	Between Junction and Ambient	R_{eJ-A}							°C/w
	Between Junction and Lead	R_{eJ-L}							
	Between Junction and Case	R_{eJ-C}							
Operating junction and stroage temperature range	T_J T_{STG}	-55to+150							°C



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Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED

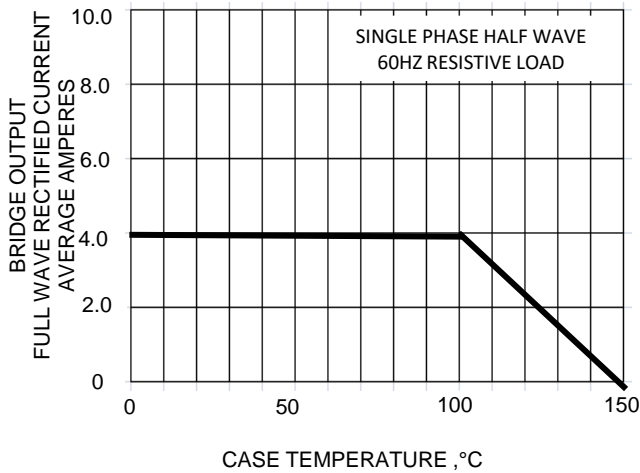


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

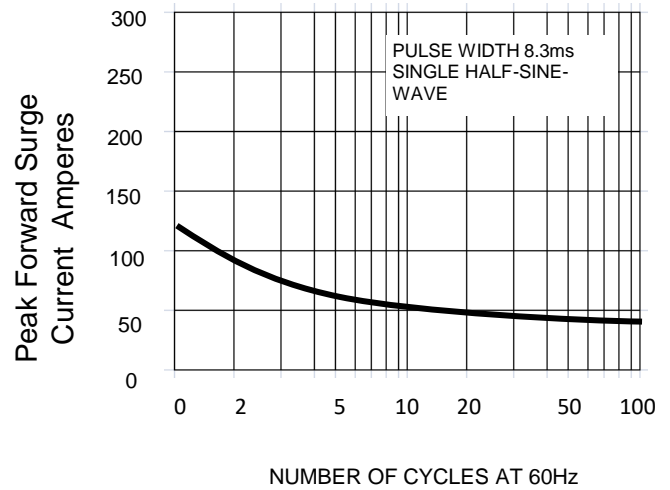


FIG.3-TYPICAL REVERSE CHARACTERISTICS

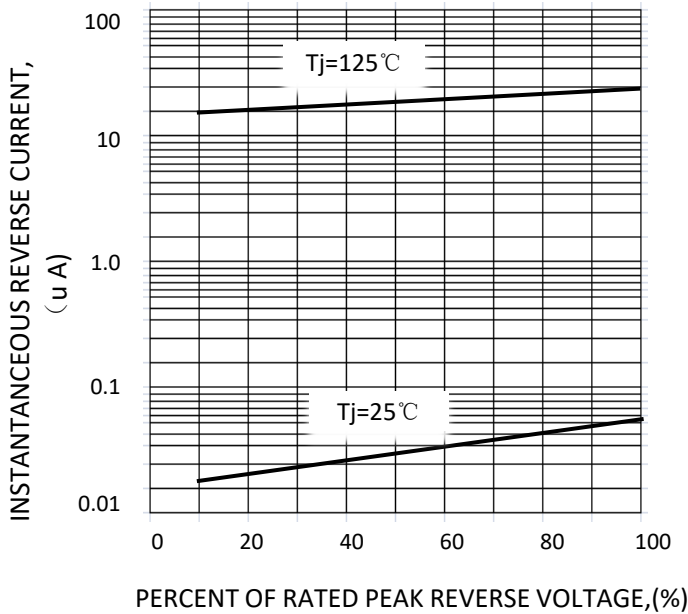
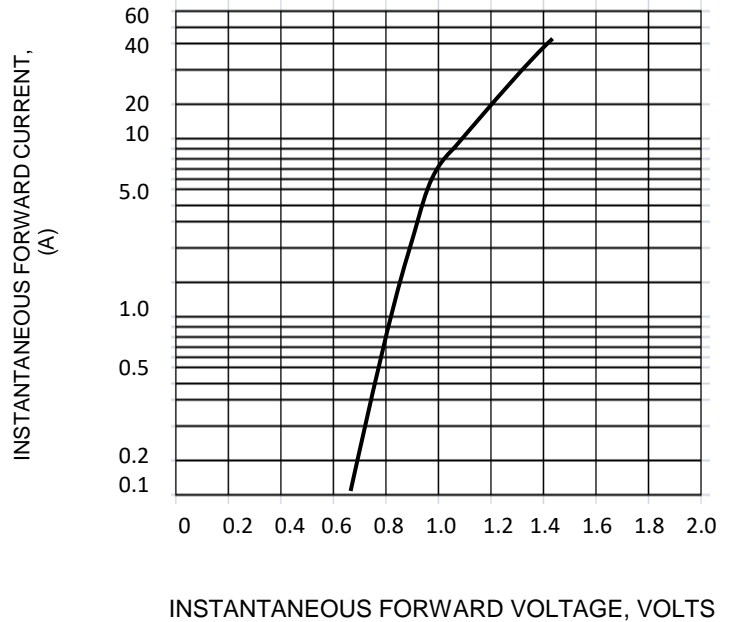


FIG.4-TYPICAL FORWARD CHARACTERISTICS



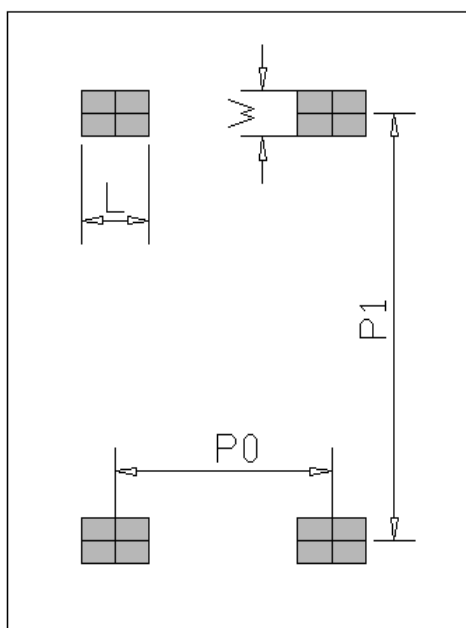


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Suggested pad layout



Unit:mm	
DIM	MIN
P0	5.10
P1	9.30
L	1.60
W	1.00

Dimensions in millimeters

Ordering Information(Example)

PREFFREN P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HBS4005-HBS410	Approximate 0.38	2500	5000	25000	13"Reel