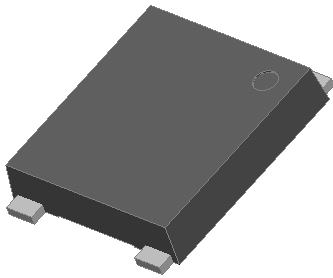


## Bridge Rectifiers

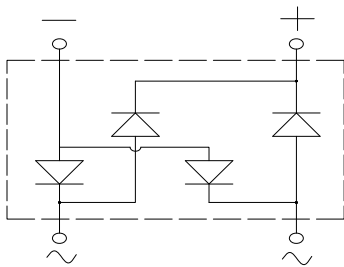


### Features

- Glass passivated chip junction
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications.



### Mechanical Data

- **Package:** YBS  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	YBS40005	YBS4001	YBS4002	YBS4004	YBS4006	YBS4008	YBS4010
Device marking code			YBS40005	YBS4001	YBS4002	YBS4004	YBS4006	YBS4008	YBS4010
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V <sub>RMS</sub>	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V <sub>DC</sub>	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T <sub>c</sub> =100°C	I <sub>O</sub>	A	4.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	120						
Current squared time @1ms≤t<8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	59.8						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	YBS40005	YBS4001	YBS4002	YBS4004	YBS4006	YBS4008	YBS4010
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =2.0A	1.0						
			I <sub>FM</sub> =4.0A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5						
			T <sub>j</sub> =125°C	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	40						



## YBS40005 THRU YBS4010

### ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	YBS40005	YBS4001	YBS4002	YBS4004	YBS4006	YBS4008	YBS4010
Typical Thermal Resistance	Between Junction and Ambient	R <sub>θJ-A</sub>	°C/W	55.0						
	Between Junction and Lead	R <sub>θJ-L</sub>		15.0						
	Between Junction and Case	R <sub>θJ-C</sub>		10.0						

Note: Device mounted on P.C.B with 35mm\*25mm\*1.7mm.

### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YBS40005-YBS4010	F1	Approximate 0.220	3000	/	42000	13" reel

### ■ Characteristics(Typical)

FIG1:I<sub>o</sub>-T<sub>c</sub> Curve

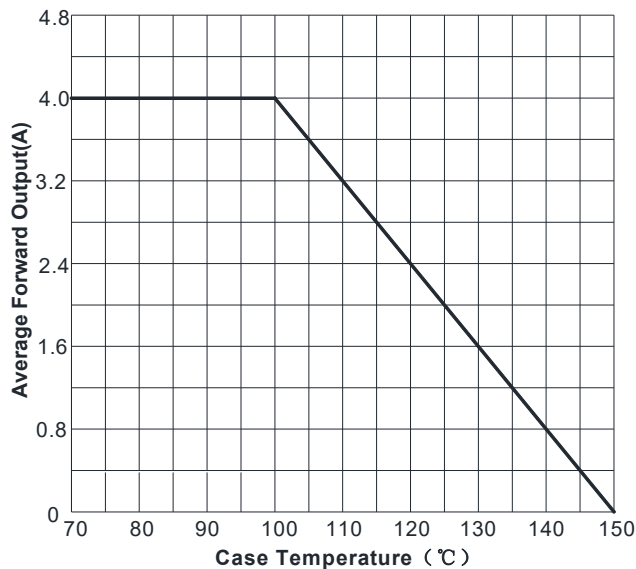


FIG2: Surge Forward Current Capability

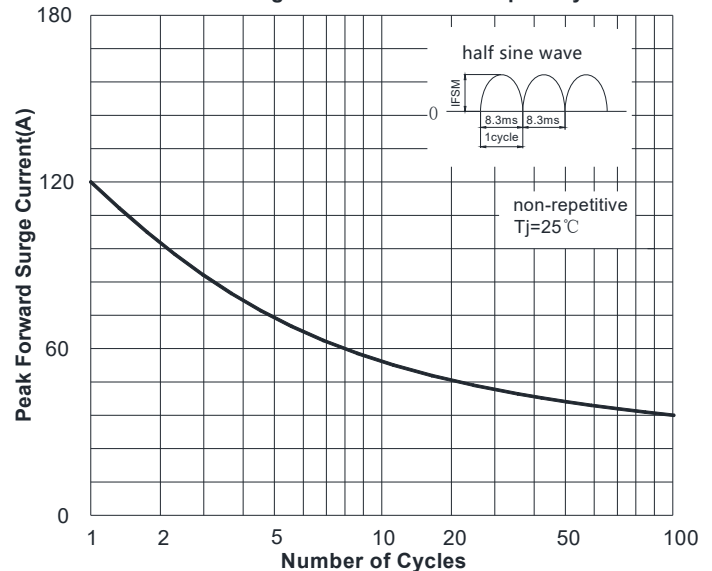


FIG3: Typical Forward Voltage

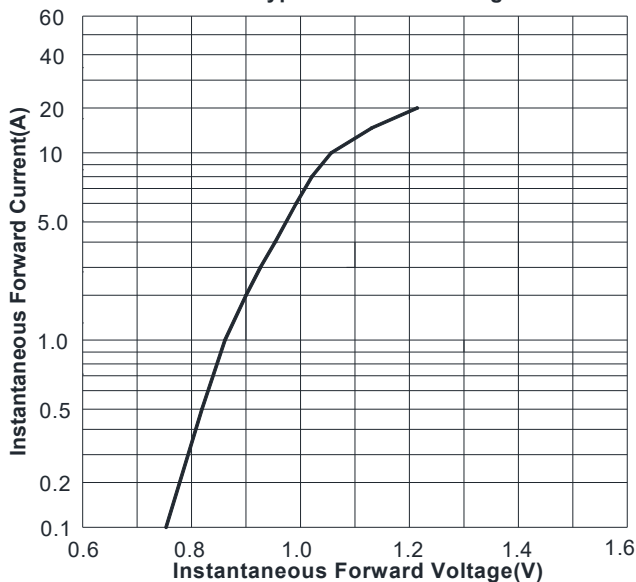
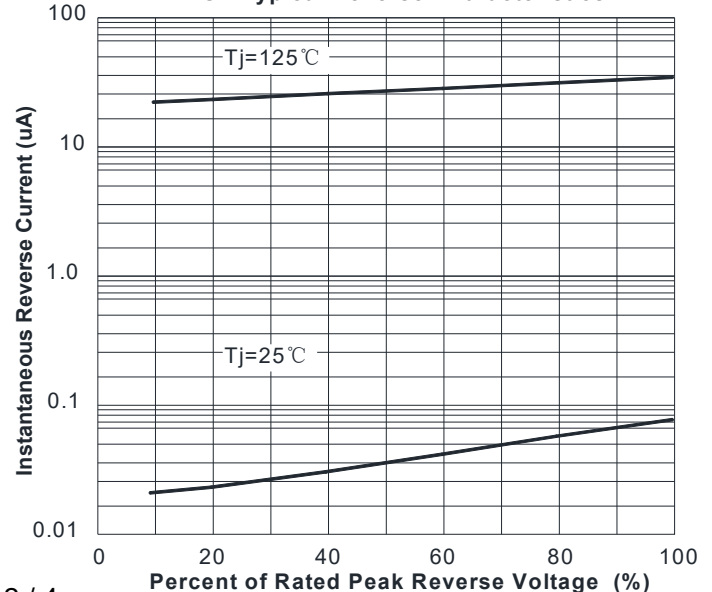


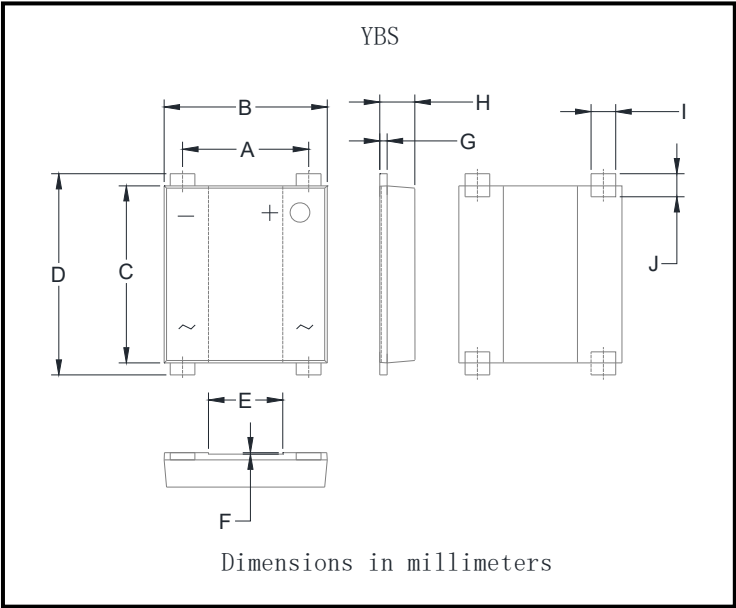
FIG4: Typical Reverse Characteristics





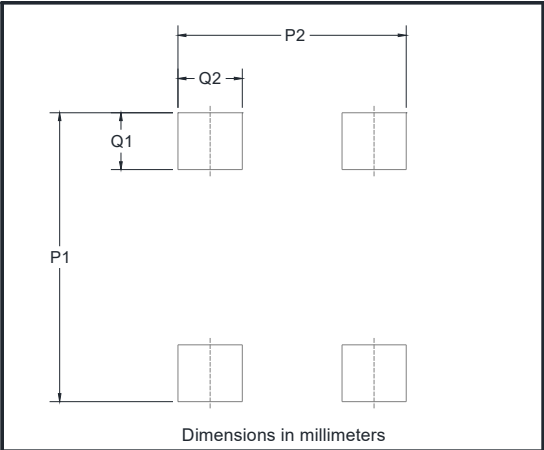
# YBS40005 THRU YBS4010

## ■ Outline Dimensions



YBS		
Dim	Min	Max
A	5.00	5.20
B	6.50	6.70
C	7.20	7.40
D	7.90	8.60
E	2.90	3.10
F	0.04	0.08
G	0.27	0.40
H	1.30	1.50
I	0.95	1.15
J	0.70	1.05

## ■ Suggested pad layout



Dim	Min
P1	9.15
P2	7.10
Q1	1.80
Q2	2.00



## YBS40005 THRU YBS4010

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