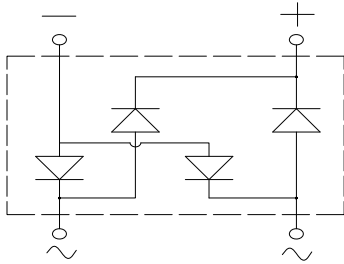
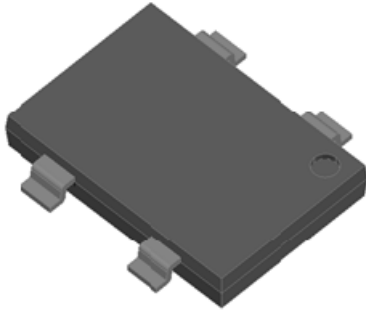


Bridge Rectifiers



Features

- UL recognition, file #E313149
- 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:** YBS3
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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Device marking code			YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, $T_c=100^\circ\text{C}$	I_O	A	4.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	120						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$			240						
Current squared time @1ms $\leq t \leq 8.3$ ms $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A^2s	59.8						
Storage temperature	T_{stg}	$^\circ\text{C}$	-55 ~ +150						
Junction temperature	T_j	$^\circ\text{C}$	-55 ~ +150						

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Maximum instantaneous forward voltage drop per diode	V_F	V	IFM=2.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	$T_j=25^\circ\text{C}$	5						
			$T_j=125^\circ\text{C}$	100						
Typical junction capacitance	C_j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	37						



YBSM40005 THRU YBSM4010

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Typical Thermal Resistance	Between Junction and Ambient	R _{θJ-A}	°C/W	55						
	Between Junction and Lead	R _{θJ-L}		10						
	Between Junction and Case	R _{θJ-C}		7						

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

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YBSM40005 THRU YBSM4010	F1	Approximate 0.35	1800	3600	25200	13" Reel

■ Characteristics (Typical)

FIG1: I_o-T_c Curve

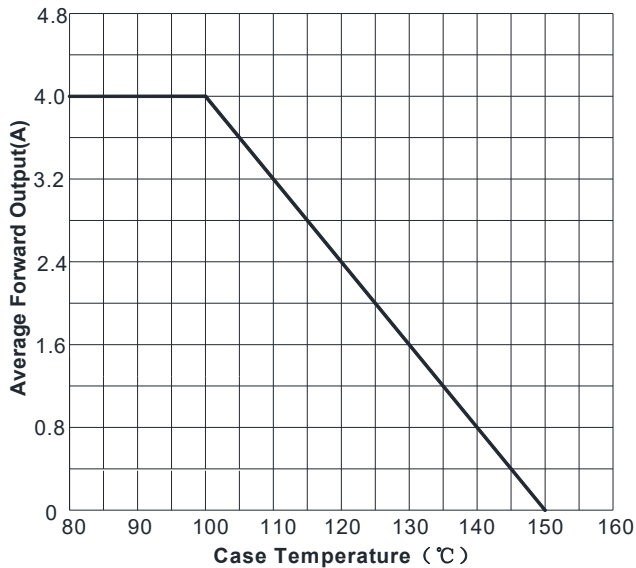


FIG2: Surge Forward Current Capability

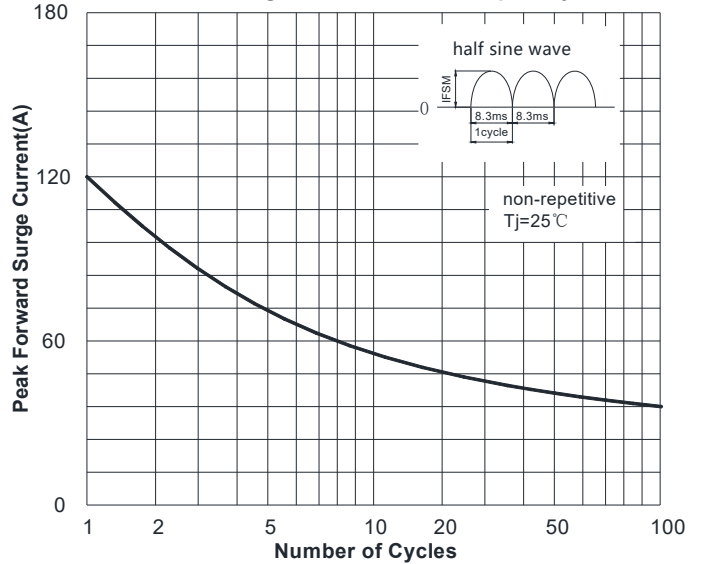


FIG3: Typical Forward Voltage

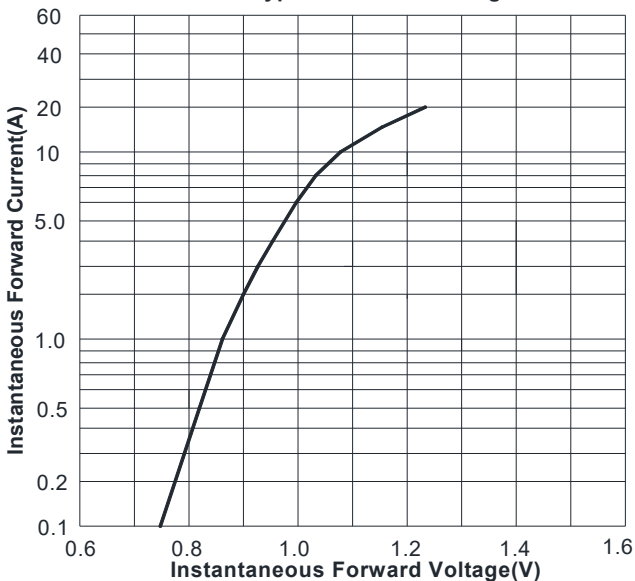
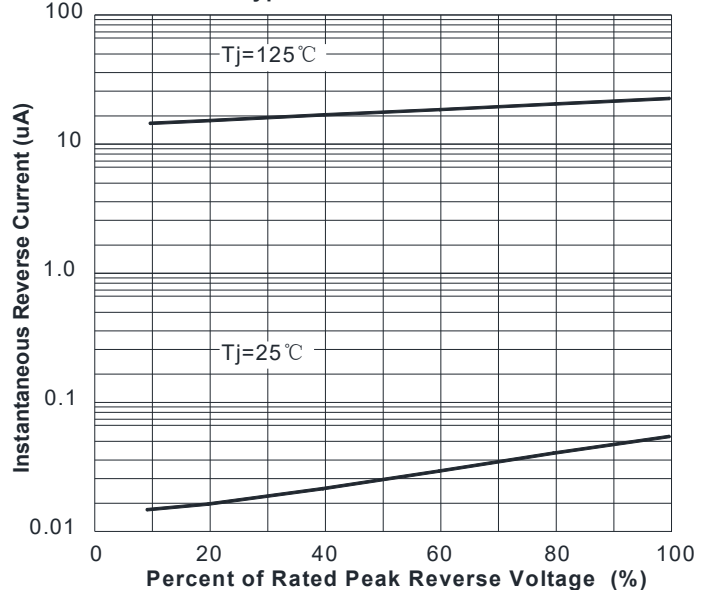


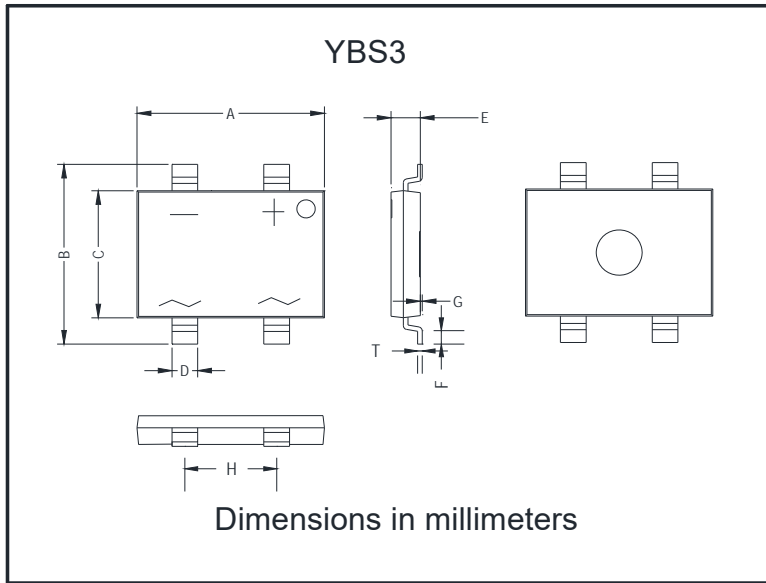
FIG4: Typical Reverse Characteristics





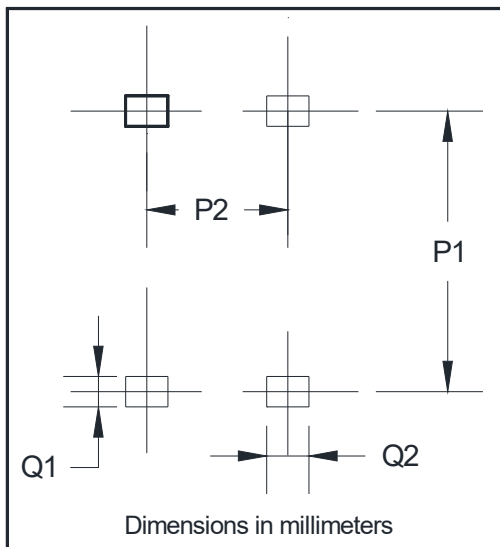
YBSM40005 THRU YBSM4010

■ Outline Dimensions



YBS3		
Dim	Min	Max
A	10.00	10.40
B	9.70	10.10
C	6.80	7.20
D	1.3	1.5
E	1.4	1.8
F	0.5	1.1
G	0	0.15
H	4.9	5.1
T	0.20	0.30

■ Suggested pad layout



YBS3	
Dim	Min
P1	9.25
P2	5.00
Q1	1.00
Q2	1.5



YBSM40005 THRU YBSM4010

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