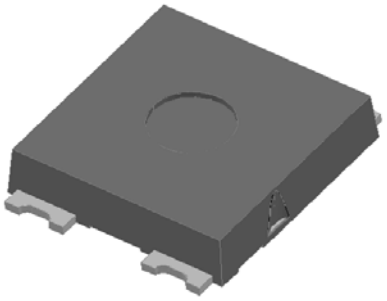
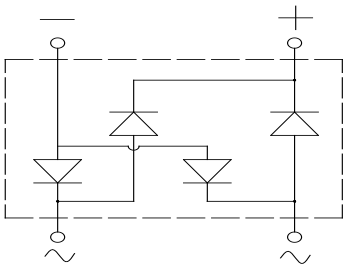
Bridge Rectifiers





Features

- 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**: YBS4
  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℃ Unless otherwise specified)

PARAMETER	SYMBO	UNIT	YBSL40005	YBSL4001	YBSL4002	YBSL4004	YBSL4006	YBSL4008	YBSL4010
Device marking code			YBSL40005	YBSL4001	YBSL4002	YBSL4004	YBSL4006	YBSL4008	YBSL4010
Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Tc=110℃	I_O	A	4.0						
Surge(non-repetitive)forward current @60HZ sine wave, 1 cycle, Tj=25℃	I_{FSM}	A	110						
Current squared time @1ms≤t<8.3ms Tj=25℃， Rating of per diode	I^2t	A^2s	50.2						
Storage temperature	T_{stg}	℃	-55 ~+150						
Junction temperature	Tj	℃	-55 ~+150						

■Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	YBSL40005	YBSL4001	YBSL4002	YBSL4004	YBSL4006	YBSL4008	YBSL4010
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=2.0A	1.0						
			I_{FM}=4.0A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_{RRM}	μA	Tj=25℃	5						
			Tj=125℃	500						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	YBSL40005	YBSL4001	YBSL4002	YBSL4004	YBSL4006	YBSL4008	YBSL4010
Thermal Resistance	Between Junction and Ambient,	RθJ-A	℃/W	32						
	Between Junction and Lead	RθJ-L		15						
	Between Junction and Case	R θ J-C		9						

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YBSL40005-YBSL4010	F1	Approximate 0.40	2500	5000	35000	13” reel

■ Characteristics(Typical)

FIG1:Io-Tc Curve

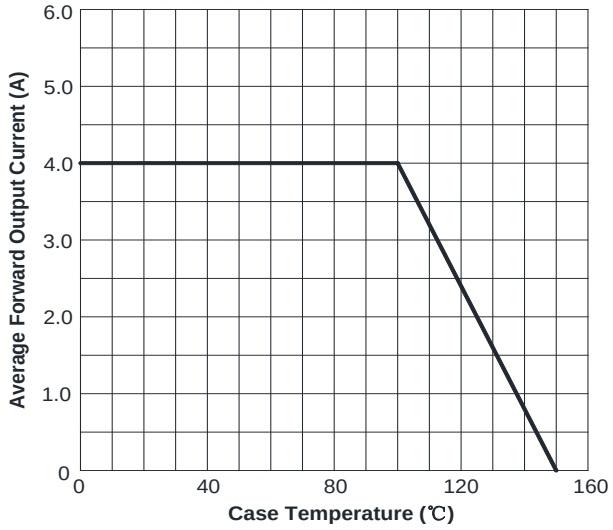


FIG2:Surge Forward Current Capability

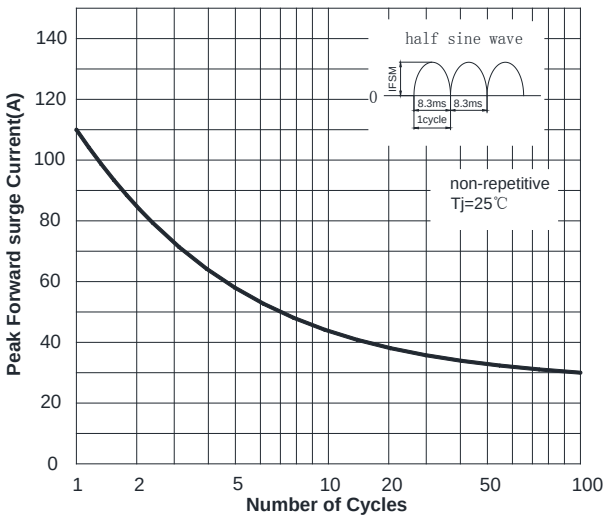


FIG3: Forward Voltage

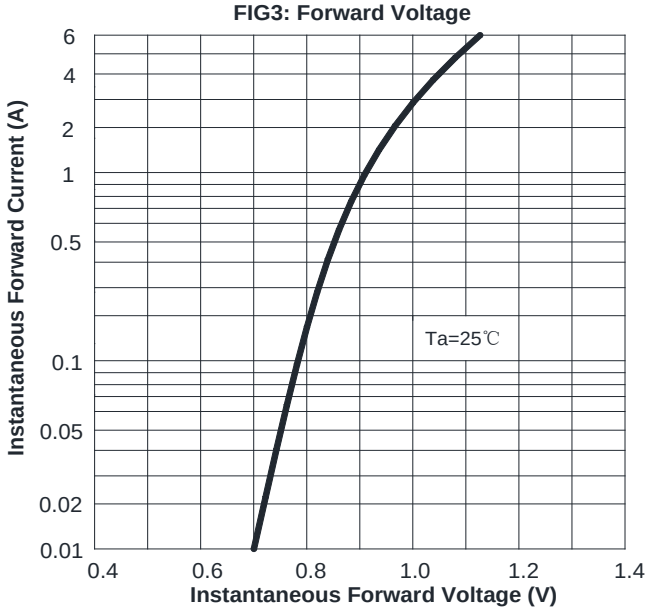
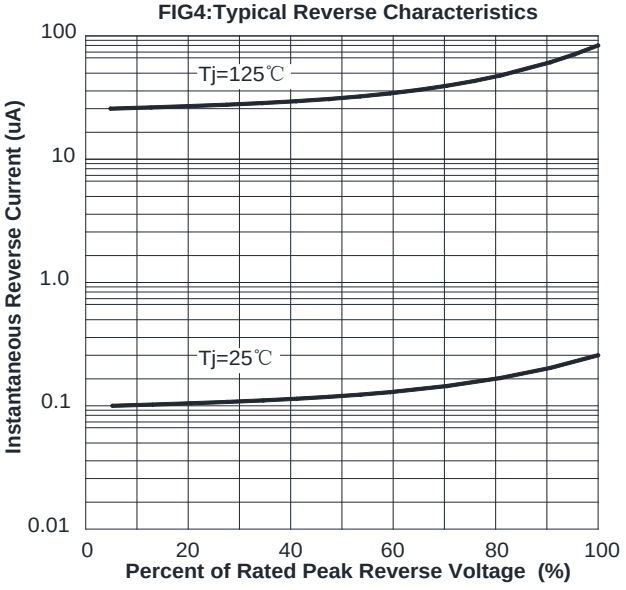
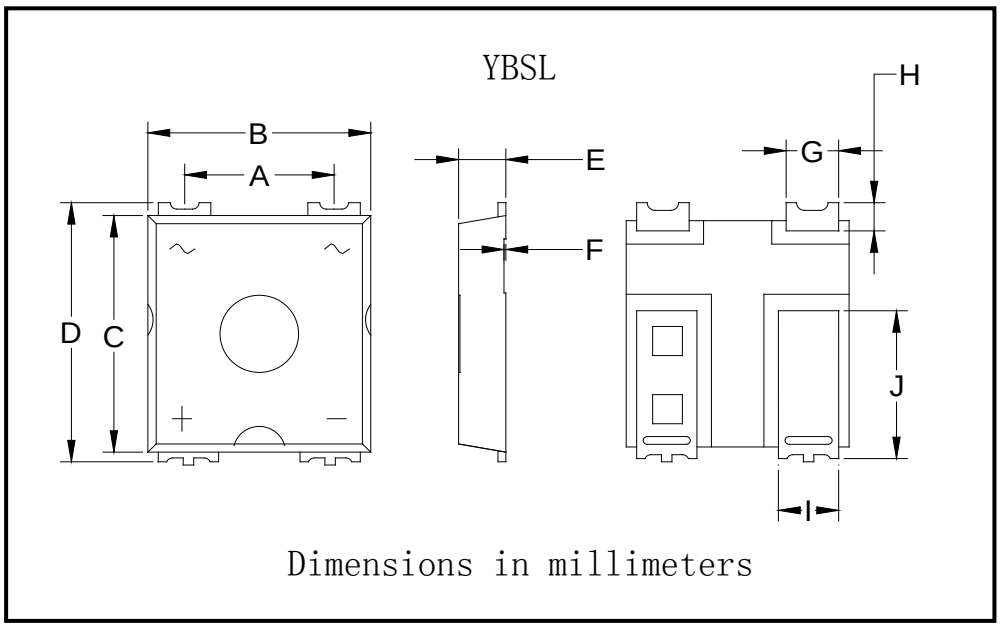


FIG4:Typical Reverse Characteristics

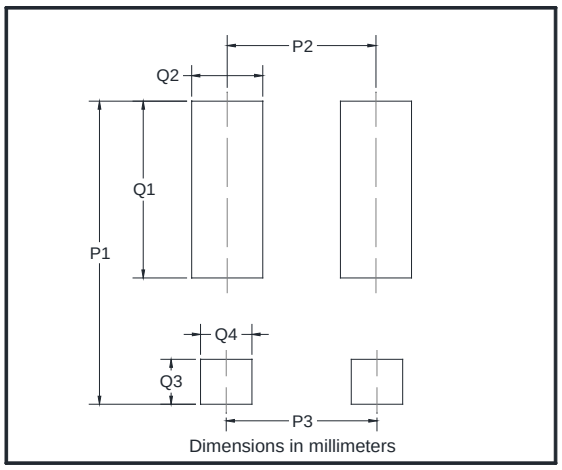


■ Outline Dimensions



YBS4		
Dim	Min	Max
A	5.60	5.80
B	8.30	8.70
C	9.00	9.40
D	10.15	10.55
E	1.70	1.90
F	0.02	0.12
G	1.90	2.10
H	0.20	1.00
I	2.20	2.40
J	5.80	6.20
K	5.30	5.50

■ Suggested pad layout



Dim	Min
P1	10.80
P2	5.40
P3	5.70
Q1	6.30
Q2	2.50
Q3	1.60
Q4	1.80

Disclaimer

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