



BF3506TV

FULL 50-60Hz RECTIFICATION BRIDGE

MAIN PRODUCT CHARACTERISTICS

I _{F(AV)}	35A
V _{RRM}	600V
V _F (max)	1.3V

FEATURES AND BENEFITS

- COMPACT ISOTOP DESIGN COMPATIBLE WITH FAST DIODES, TRANSISTORS AND PASSIVE COMPONENTS.
- EXCELLENT THERMAL TRANSFER JUNCTION TO HEATSINK
- UL PENDING

DESCRIPTION

The Bridges series from SGS-THOMSON has been designed to allow a better standardization of packages on boards principally designed with ISOTOP packages. The insulated package of the bridge will be able to sit on heatsink with other components. Single phase and 3-phase high power SMPS, UPS, MOTOR DRIVES and WELDING equipment will primarily find advantage in these industry package products.

PRELIMINARY DATASHEET



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (per diode unless specified)

Symbol	Parameter		Value	Unit
V _{RRM}	Repetitive peak reverse voltage		600	V
V _{RSM}	Non repetitive peak reverse voltage		600	V
I _{F(AV)} total	Average forward current	T _c =80°C Sinus	35	A
I _{FSM}	Surge non repetitive forward current 50Hz JEDEC method		300	A
I _{2.t}	Fusing		660	A ² .s
T _{stg}	Storage temperature range		- 65 to + 150	°C
T _j	Max. operating junction temperature		150	°C
P _{max} total	Total power dissipation		50	W

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THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
R _{th} (j-c) total	Junction to case	0.5	°C/W

ELECTRICAL CHARACTERISTICS (Per diode)

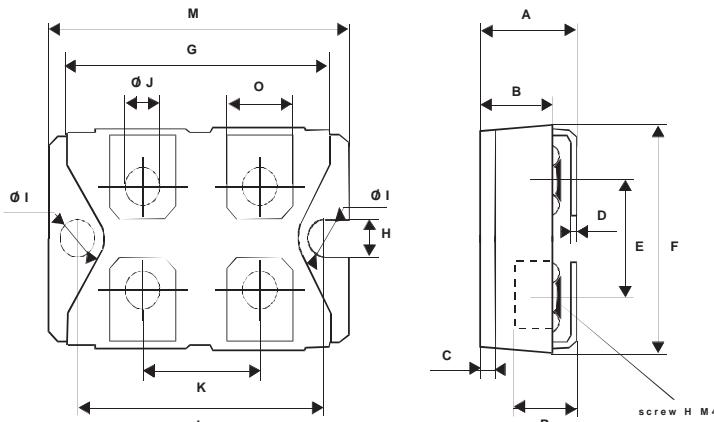
STATIC CHARACTERISTICS

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I _R *	Reverse leakage current	V _R = 0.8 V _{RRM} δ < 2% t _p = 5ms	T _j = 25°C			10	μA
			T _j = 125°C			0.2	mA
V _F **	Forward voltage drop	I _F = 35 A δ < 2% t _p = 380 μs	T _j = 25°C			1.4	V
			T _j = 125°C			1.3	V

Pulse test : * t_p = 5 ms, duty cycle < 2 %

** t_p = 380 μs, duty cycle < 2 %

For one diode: P_{cond} = 1.02 × I_{F(AV)} + 0.008 × I_{F(RMS)}² and T_j = P_{cond} × 4 × R_{th(j-c)} + T_c

PACKAGE DATA (millimeter)
ISOTOP (Plastic)


REF.	DIMENSIONS			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	11.80	12.20	0.465	0.480
B	8.90	9.10	0.350	0.358
C	1.95	2.05	0.077	0.081
D	0.75	0.85	0.029	0.034
E	12.60	12.80	0.496	0.504
F	25.10	25.50	0.988	1.004
G	31.50	31.70	1.240	1.248
H	4.00		0.157	
I	4.10	4.30	0.161	0.169
J	4.10	4.30	0.161	0.169
K	14.90	15.10	0.586	0.595
L	30.10	30.30	1.185	1.193
M	37.80	38.20	1.488	1.504
O	7.80	8.20	0.307	0.323
P	5.50		0.216	

Cooling method : C

Marking : Type number

Weight : 28 g. (without screws)

Electrical isolation : 2500V_(RMS)

Capacitance : < 45 pF

Inductance : < 5 nH

- Recommended torque value : 1.3 N.m (MAX 1.5 N.m) for the 6 x M4 screws. (2 x M4 screws recommended for mounting the package on the heatsink and the 4 screws given with the screw version).
- The screws supplied with the package are adapted for mounting on a board (or other types of terminals) with a thickness of 0.6 mm min and 2.2 mm max.

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