

**FEATURES**

- Isolated mounting base 2500V-
- Pressure contact technology with Increased power cycling capability
- Space and weight savings
- Welding

**TYPICAL APPLICATIONS**

- Inverter
- Inductive heating
- Chopper

**TECHNICAL DATA**

DEVICE TYPE	V <sub>RRM</sub> (V)	V <sub>RSM</sub> (V)
BKW75/12	1200	1300
BKW75/16	1600	1700



Symbol	Parameter	Test condition	Rating	Unit
I <sub>O</sub>	Average on-state current	Single-phase full-wave rectifying circuit T <sub>C</sub> :85°C	75	A
I <sub>T(RMS)</sub> , I <sub>F(RMS)</sub>	Forward RMS current	One-side heat-dissipation, 180°sin half wave, 50Hz, T <sub>C</sub> :85°C	118	A
I <sub>TSM</sub> , I <sub>FSM</sub>	Forward surge current	t=10ms, 50Hz, Sin, T <sub>J</sub>	1700	A
I <sub>t</sub> <sup>2</sup>	I <sub>t</sub> <sup>2</sup> value	V <sub>R</sub> = 0.6V <sub>RRM</sub> , T <sub>J</sub>	14400	A <sup>2</sup> S
P <sub>GM</sub>	Peak gate power		10	W
P <sub>G(AV)</sub>	Average gate power		3	W
di/dt	On-state current critical rise rate	I <sub>GM</sub> =1.5A, t <sub>r</sub> ≤0.5μs, T <sub>J</sub> =25°C	50	A/μs
V <sub>ISO</sub>	Isolation voltage	AC one minute	2500	V
T <sub>J</sub>	Operating junction temperature		-40 to +125	°C
T <sub>Jm</sub>	Rated junction temperature		125	°C
T <sub>stg</sub>	Storage temperature		-40 to +125	°C
M <sub>d</sub>	Mounting torque (copper plate) M6		6	N·m
	Mounting torque (connection terminal) M5		4	N·m
W <sub>t</sub>	Weight		200	g

Symbol	Parameter	Test condition	Rating	Unit
I <sub>DRM</sub>	Peak off-state repetitive current	One-side heat-dissipation, V <sub>D</sub> =V <sub>DRM</sub> , sine half wave, T <sub>J</sub> =125°C	10	mA
I <sub>RRM</sub>	Peak reverse repetitive current	One-side heat-dissipation, V <sub>R</sub> =V <sub>RRM</sub> , sine half wave, T <sub>J</sub> =125°C	10	mA
V <sub>TM</sub> / V <sub>FM</sub>	Peak forward voltage	I <sub>TM</sub> / I <sub>FM</sub> =112A, T <sub>J</sub> =25°C	1.6/1.3	V
V <sub>GT</sub>	Gate trigger voltage	T <sub>J</sub> =25°C, I <sub>T</sub> =1A, V <sub>D</sub> =12V	0.7-1.5	V
I <sub>GT</sub>	Gate trigger current	T <sub>J</sub> =25°C, I <sub>T</sub> =1A, V <sub>D</sub> =12V	20-100	mA
V <sub>GD</sub>	Gate non-trigger voltage	T <sub>J</sub> =125°C, V <sub>D</sub> =2/3V <sub>DRM</sub>	0.2	V
I <sub>GD</sub>	Gate non-trigger current	T <sub>J</sub> =125°C, V <sub>D</sub> =2/3V <sub>DRM</sub>	10	mA
dv/dt	On-state voltage critical rise rate	T <sub>J</sub> =125°C, V <sub>D</sub> =2/3V <sub>DRM</sub>	500	V/μs
I <sub>H</sub>	Holding current	T <sub>J</sub> =25°C	20-150	mA
I <sub>L</sub>	Latching current	T <sub>J</sub> =25°C	100-400	mA
R <sub>th(j-c)</sub>	Thermal impedance (junction-case)	One-side heat dissipation, sine half wave	0.40	°C/W

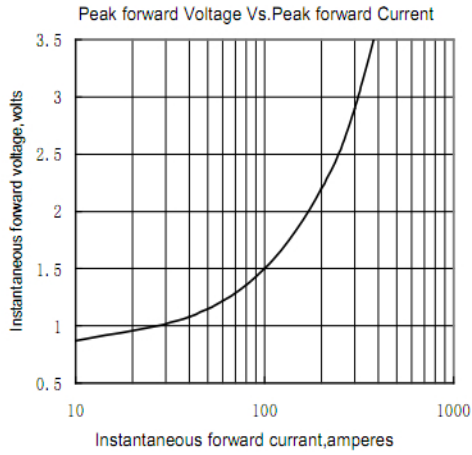


Fig.1

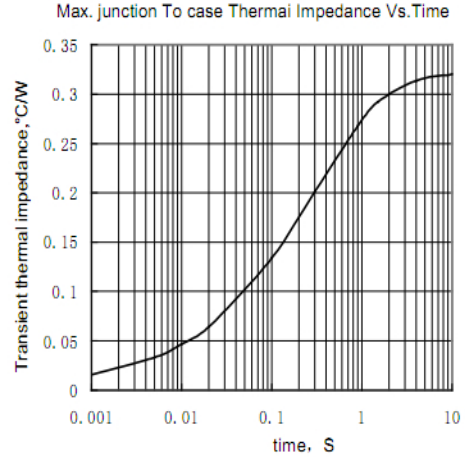


Fig.2

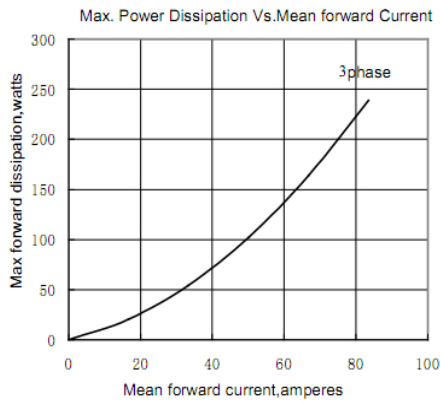


Fig.3

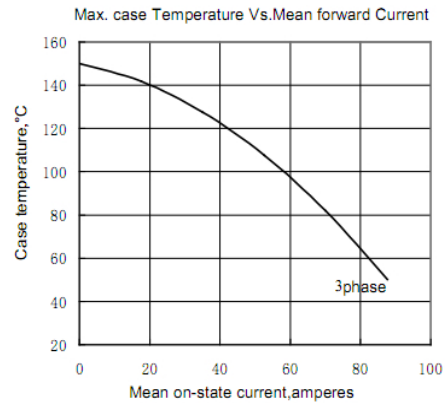


Fig.4

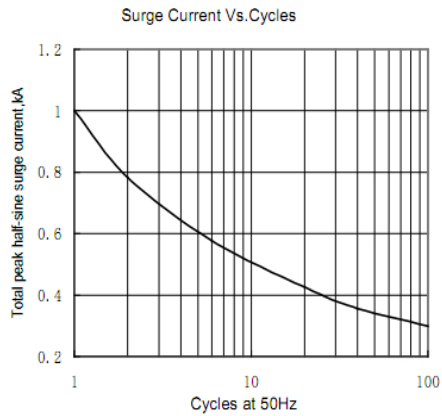


Fig.5

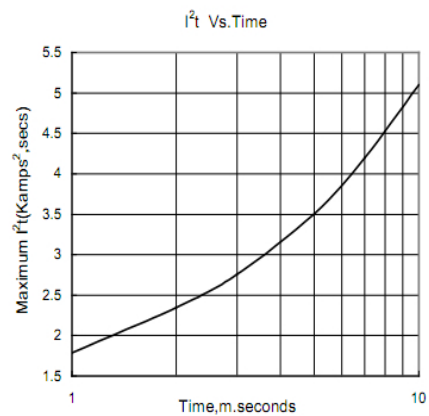
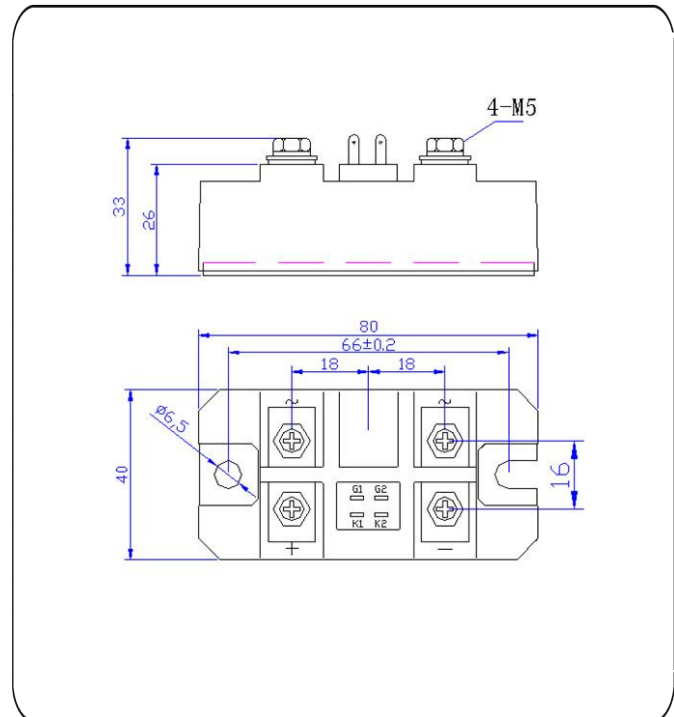
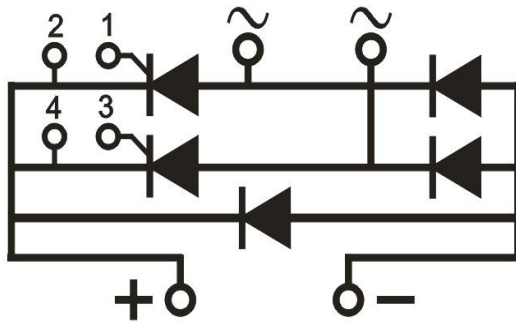


Fig.6

**PACKAGE OUTLINE**

**CIRCUIT DIAGRAM**



All dimensions are in mm.

**Insel Rectifiers (India) Pvt. Ltd.**

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Plot No 151, Udyog Kendra, Extn.-II, Ecotech-III, Greater Noida-201306

Toll Free No.: 1800 3070 9989, Fax : 011-27491404

E-mail : [insel@rectifierindia.com](mailto:insel@rectifierindia.com), [sales@rectifierindia.com](mailto:sales@rectifierindia.com)