

**FEATURES**

- IT(AV) 200A (each device)
- High Surge Current 2500 A(60Hz)
- Easy Construction
- Non-isolated.Mounting base as common Anode terminal

**TYPICAL APPLICATIONS**

- Welding power Supply
- Various DC power Supply

**TECHNICAL DATA**

DEVICE TYPE	V <sub>DRM</sub> /V <sub>RRM</sub> (V)	V <sub>RSM</sub> (V)
<b>PWB200/30</b>	<b>300</b>	<b>400</b>
<b>PWB200/40</b>	<b>400</b>	<b>500</b>



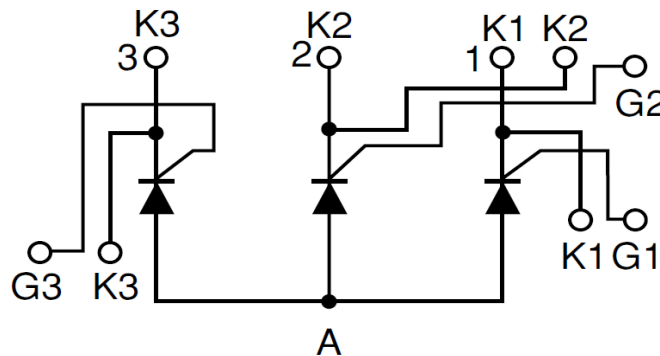
■ **Maximum Ratings**

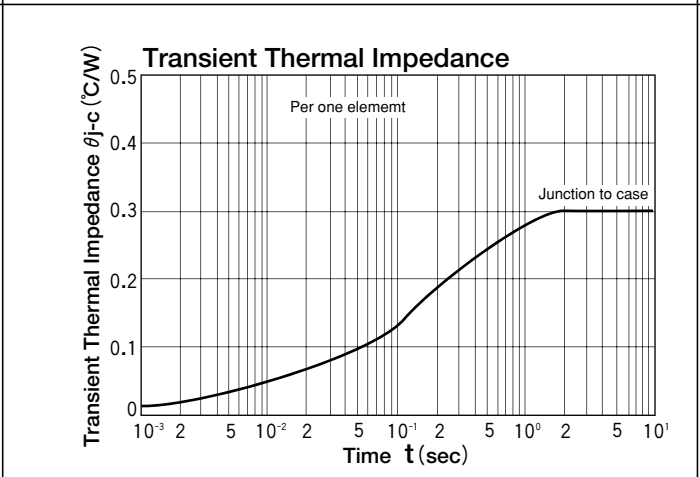
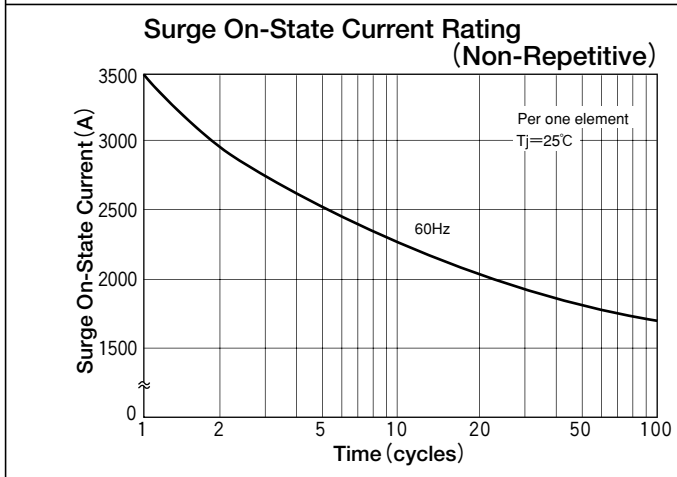
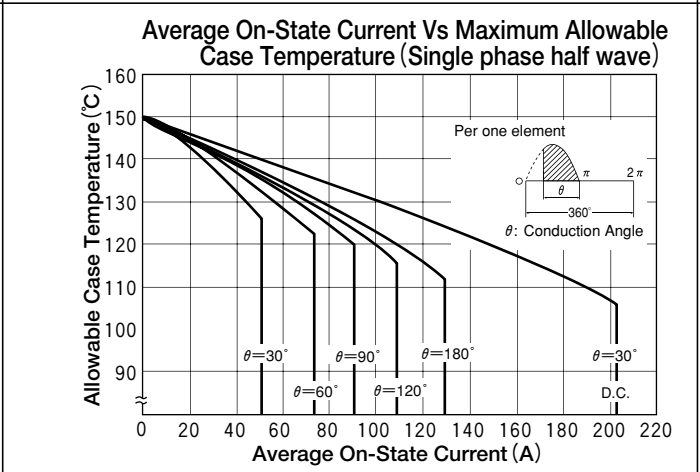
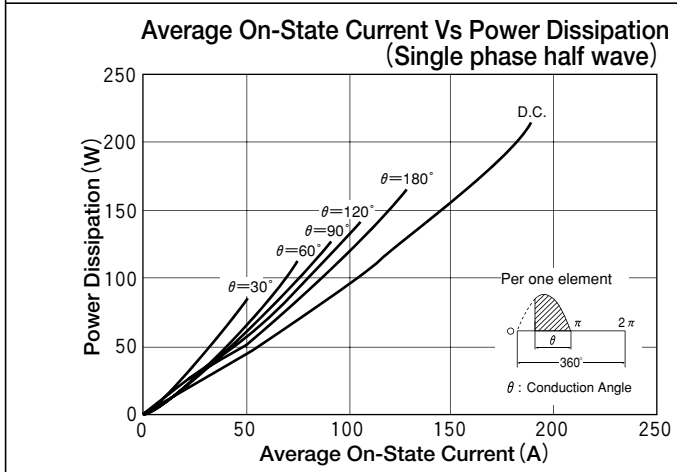
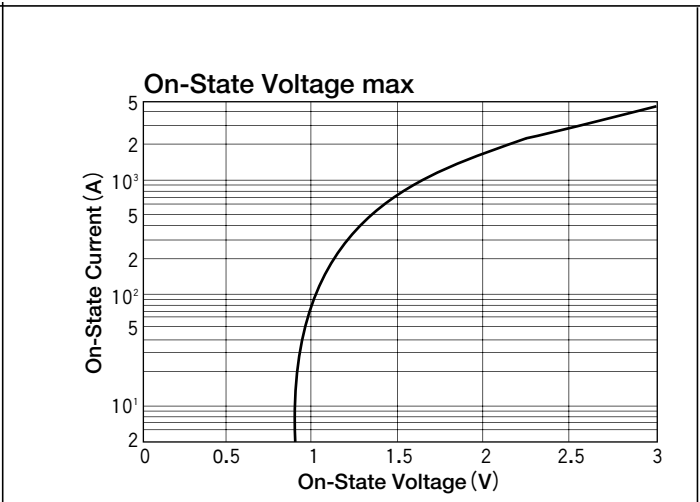
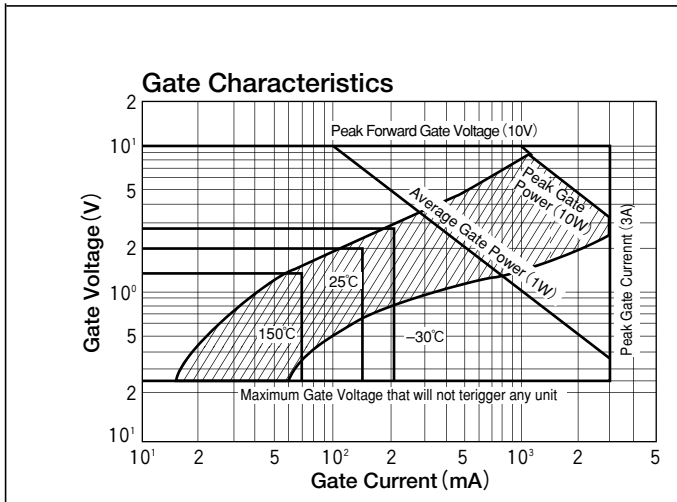
Symbol	Item	Conditions	Ratings	Unit
I <sub>T(AV)</sub>	Average On-State Current	Single phase, half wave, 180° conduction, T <sub>c</sub> : 121°C	200	A
I <sub>T(RMS)</sub>	R.M.S. On-State Current	Single phase, half wave, 180° conduction, T <sub>c</sub> : 121°C	314	A
I <sub>TSM</sub>	Surge On-State Current	1/2 cycle, 50Hz/60Hz, peak value, non-repetitive	5400/6000	A
I <sup>2</sup> t	I <sup>2</sup> t		1499400	A <sup>2</sup> S
P <sub>GM</sub>	Peak Gate Power Dissipation		10	W
P <sub>G(AV)</sub>	Average Gate Power Dissipation		1	W
I <sub>FGM</sub>	Peak Gate Current		3	A
V <sub>FGM</sub>	Peak Gate Voltage (Forward)		10	V
V <sub>RGM</sub>	Peak Gate Voltage (Reverse)		5	V
di/dt	Critical Rate of Rise of On-State Current	I <sub>G</sub> =200mA, T <sub>j</sub> =25°C, V <sub>D</sub> =1/2V <sub>DRM</sub> , dI <sub>G</sub> /dt=1A/μs	200	A/μs
T <sub>j</sub>	Operating Junction Temperature		-40 to +150	°C
T <sub>stg</sub>	Storage Temperature		-40 to +125	°C
Mounting torque	Mounting (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	N·m (kgf·cm)
	Terminal (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	
Mass			280	g

■ **Electrical Characteristics**

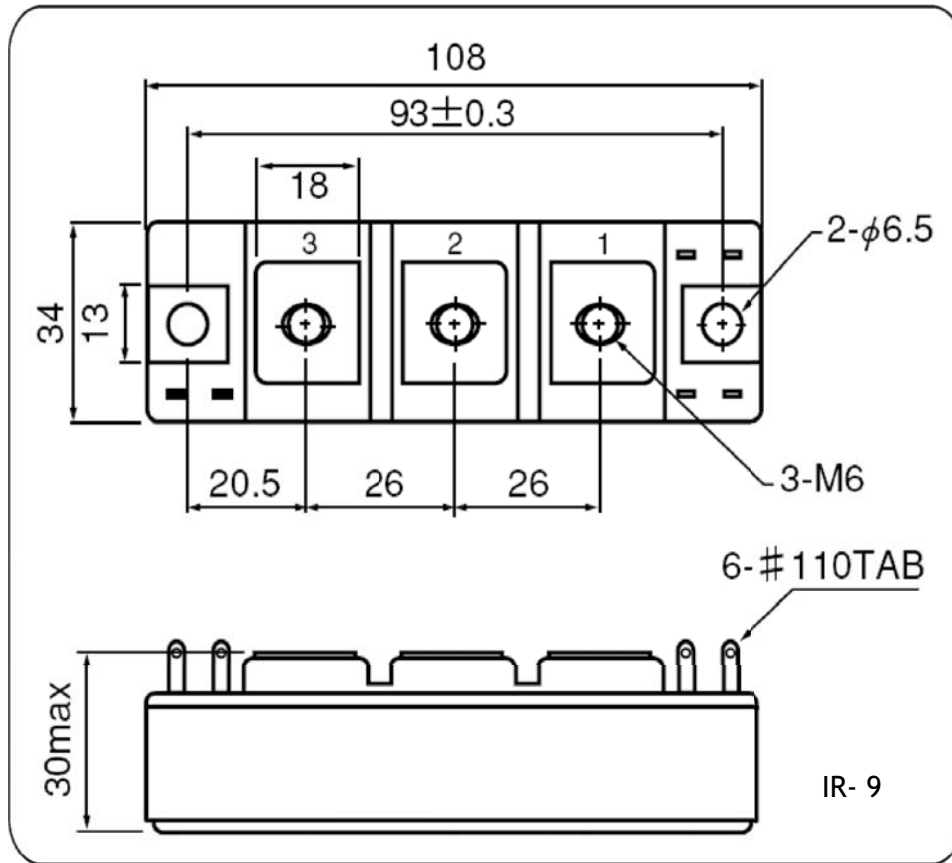
Symbol	Item	Conditions	Ratings	Unit
$I_{DRM}$	Repetitive Peak Off-State Current, max.	at $V_{DRM}$ , Single phase, half wave, $T_j=150^\circ\text{C}$	60	mA
$I_{RRM}$	Repetitive Peak Reverse Current, max.	at $V_{DRM}$ , Single phase, half wave, $T_j=150^\circ\text{C}$	60	mA
$V_{TM}$	Peak On-State Voltage, max.	On-State Current 630A, $T_j=25^\circ\text{C}$ Inst. measurement	1.20	V
$I_{GT}$	Gate Trigger Current, max.	$T_j=25^\circ\text{C}$ , $I_T=1\text{A}$ , $V_D=6\text{V}$	150	mA
$V_{GT}$	Gate Trigger Voltage, max.	$T_j=25^\circ\text{C}$ , $I_T=1\text{A}$ , $V_D=6\text{V}$	2	V
$V_{GD}$	Non-Trigger Gate, Voltage. min.	$T_j=150^\circ\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$	0.25	V
tgt	Turn On Time, max.	$I_T=200\text{A}$ , $I_G=200\text{mA}$ , $T_j=25^\circ\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$ , $di_G/dt=1\text{A}/\mu\text{s}$	10	$\mu\text{s}$
dv/dt	Critical Rate of Rise of Off-State Voltage, min.	$T_j=150^\circ\text{C}$ , $V_D=\frac{2}{3}V_{DRM}$ , Exponential wave.	200	$\text{V}/\mu\text{s}$
$I_H$	Holding Current, typ.	$T_j=25^\circ\text{C}$	70	mA
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case ( $\frac{1}{3}$ Module)	0.12	$^\circ\text{C}/\text{W}$

**CIRCUIT DIAGRAM**





PACKAGE OUTLINE



All dimensions are in mm.

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(An ISO 9001:2015, ISO 14001:2015 Certified Company)

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