

FEATURES

- IT(AV) 80A (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 _{DRM} /V _{RRM} (V)	V _{RSM} (V)
PWB80/30	300	400
PWB80/40	400	500



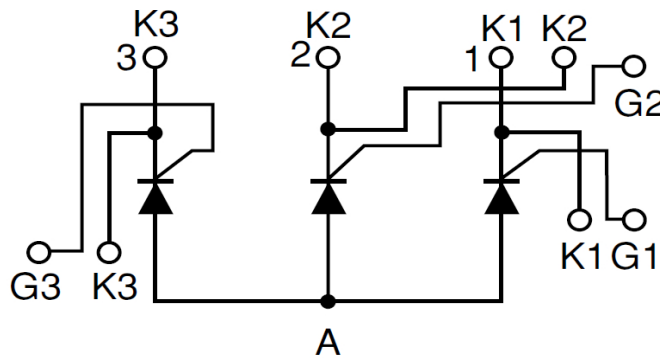
■ **Maximum Ratings**

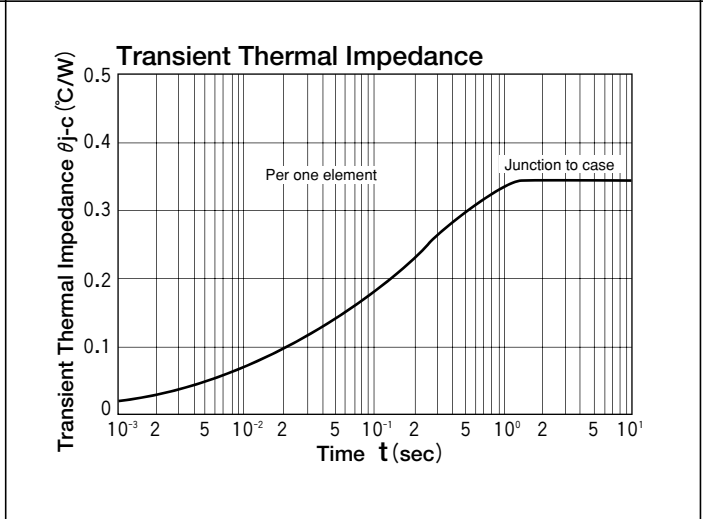
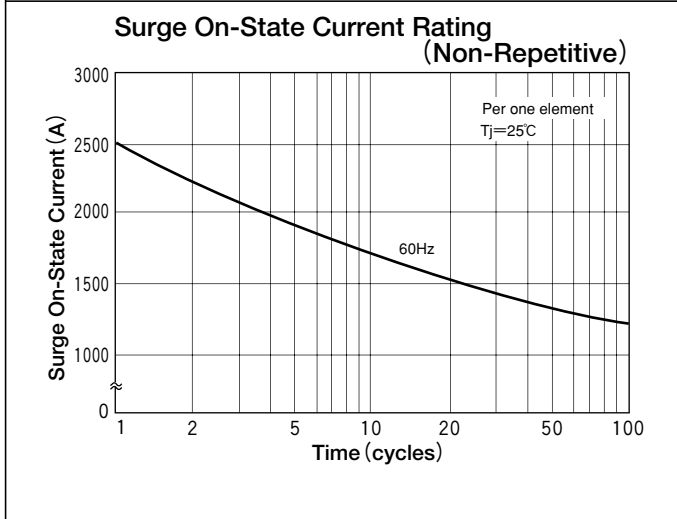
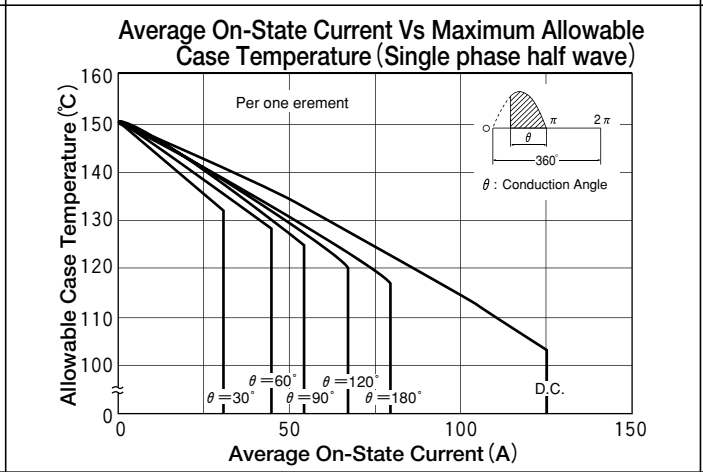
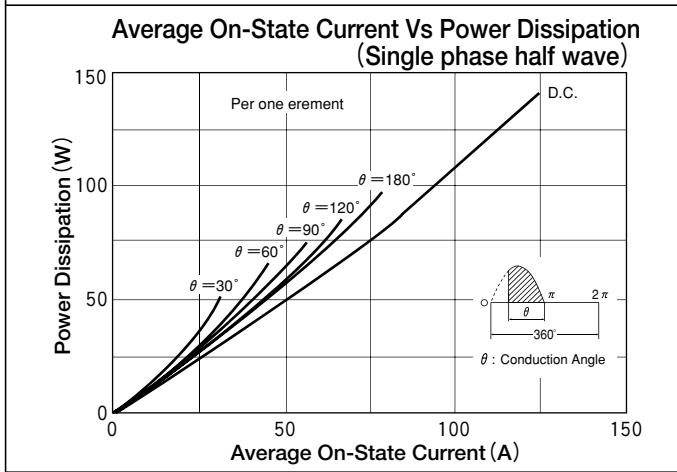
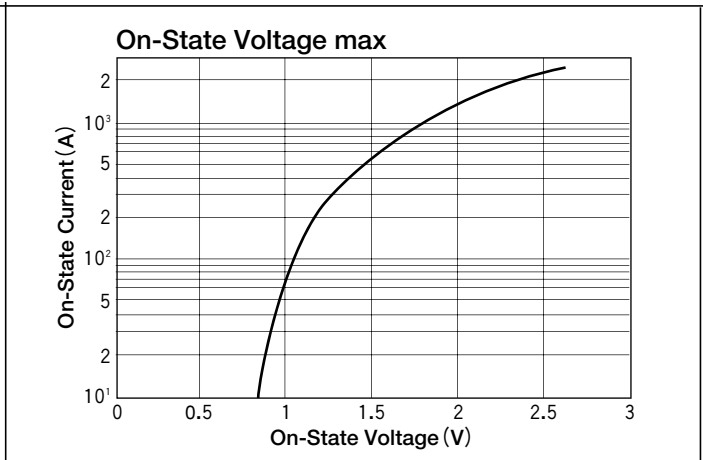
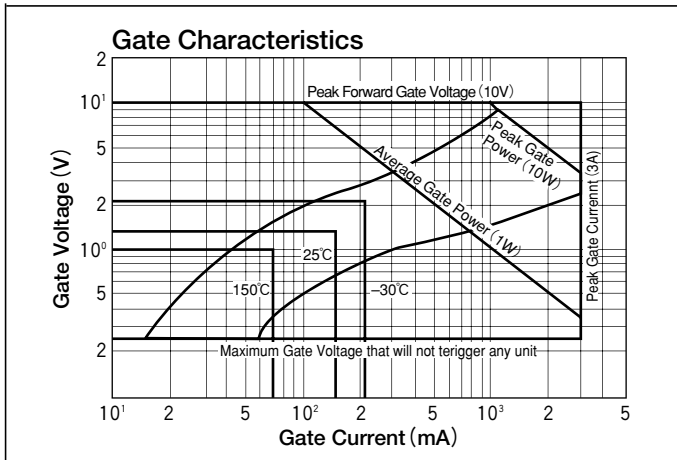
Symbol	Item	Conditions	Ratings	Unit
IT(AV)	Average On-State Current	Single phase, half wave, 180° conduction, Tc : 116°C	80	A
IT(RMS)	R.M.S. On-State Current	Single phase, half wave, 180° conduction, Tc : 116°C	125	A
ITSM	Surge On-State Current	1/2 cycle, 50Hz/60Hz, peak value, non-repetitive	2280/2500	A
I ² t	I ² t		26000	A ² S
P _{GM}	Peak Gate Power Dissipation		10	W
P _{G(AV)}	Average Gate Power Dissipation		1	W
I _{FGM}	Peak Gate Current		3	A
V _{FGM}	Peak Gate Voltage(Forward)		10	V
V _{RGM}	Peak Gate Voltage(Reverse)		5	V
di/dt	Critical Rate of Rise of On-State Current	I _G =200mA, T _j =25°C, V _D =1/2V _{DRM} , di _G /dt=1A/μs	200	A/μs
T _j	Operating Junction Temperature		-30 to +150	°C
T _{stg}	Storage Temperature		-30 to +125	°C
Mounting torque	Mounting (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	N·m (kgf·cm)
	Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass		170	g

■ **Electrical Characteristics**

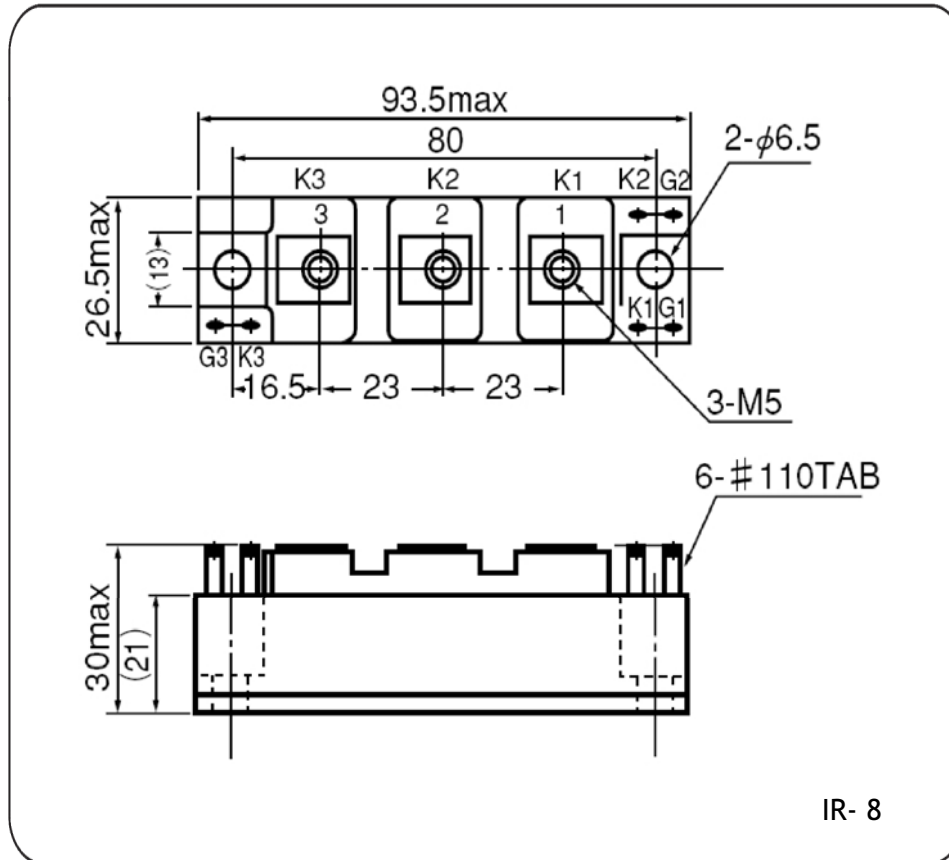
Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-State Current, max.	at V_{DRM} , single phase, half wave, $T_j=150^\circ\text{C}$	12	mA
I_{RRM}	Repetitive Peak Reverse Current, max.	at V_{DRM} , single phase, half wave, $T_j=150^\circ\text{C}$	12	mA
V_{TM}	Peak On-State Voltage, max	On-State Current 240A, $T_j=25^\circ\text{C}$ Inst. measurement	1.20	V
I_{GT}/V_{GT}	Gate Trigger Current/Voltage, max.	$T_j=25^\circ\text{C}$, $I_T=1\text{A}$, $V_D=6\text{V}$	150/2	mA/V
V_{GD}	Non-Trigger Gate, Voltage. min.	$T_j=150^\circ\text{C}$, $V_D=1/2 V_{DRM}$	0.25	V
t_{gt}	Turn On Time, max.	$I_T=80\text{A}$, $I_G=200\text{mA}$, $T_j=25^\circ\text{C}$, $V_D=1/2 V_{DRM}$, $di_G/dt=1\text{A}/\mu\text{s}$	10	μs
dv/dt	Critical Rate of Rise of Off-State Voltage, min.	$T_j=150^\circ\text{C}$, $V_D=2/3 V_{DRM}$, Exponential wave.	50	$\text{V}/\mu\text{s}$
I_H	Holding Current, typ.	$T_j=25^\circ\text{C}$	100	mA
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case ($1/3$ Module)	0.35	$^\circ\text{C}/\text{W}$

CIRCUIT DIAGRAM





PACKAGE OUTLINE



All dimensions are in mm.

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