

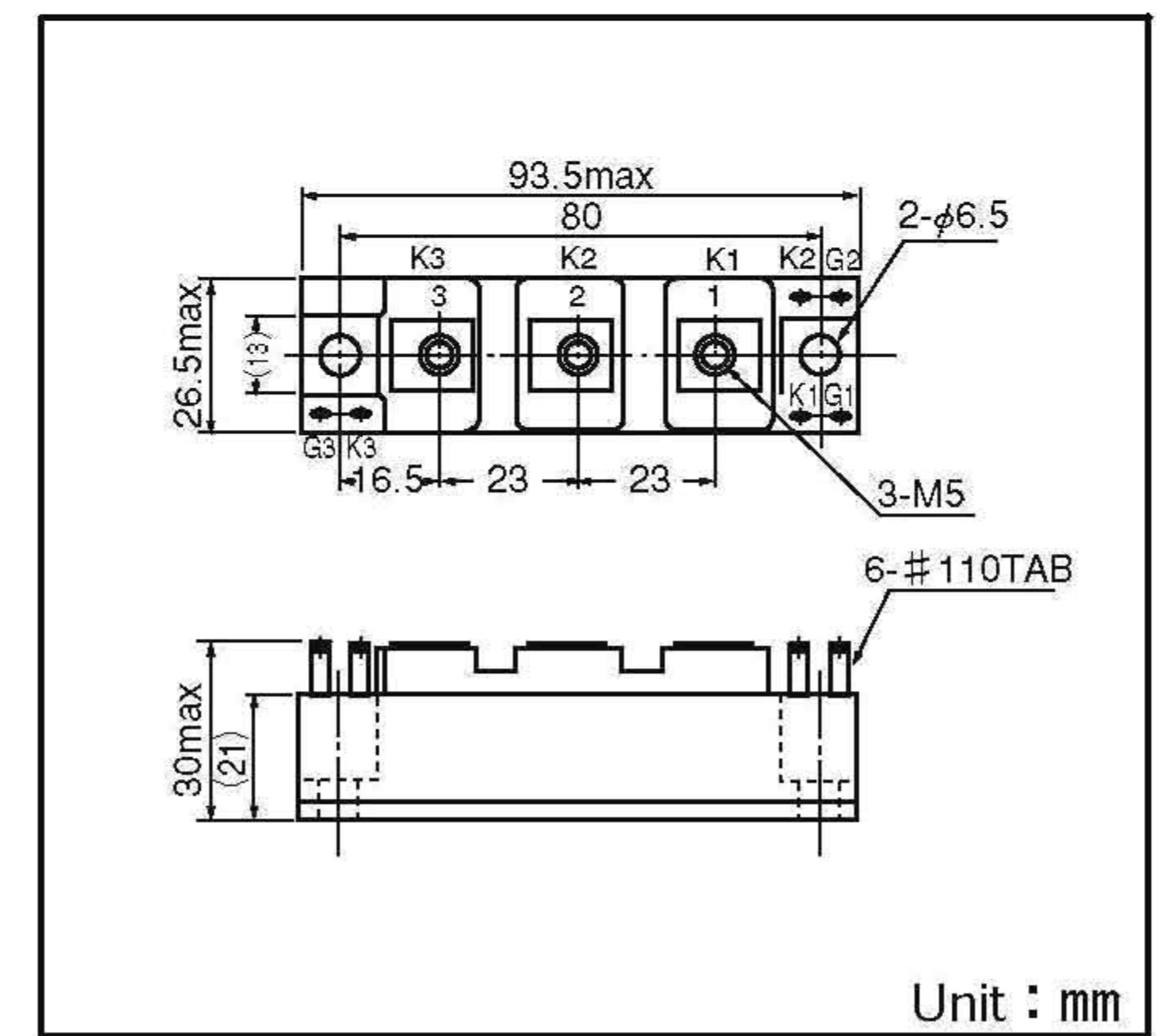
### Type : RHTT 100 A 40

#### Features

- $I_{T(AV)}$  100A (each device)
- High Surge Current 3200 A
- Easy Construction
- Non-isolated. Mounting base as common Anode terminal

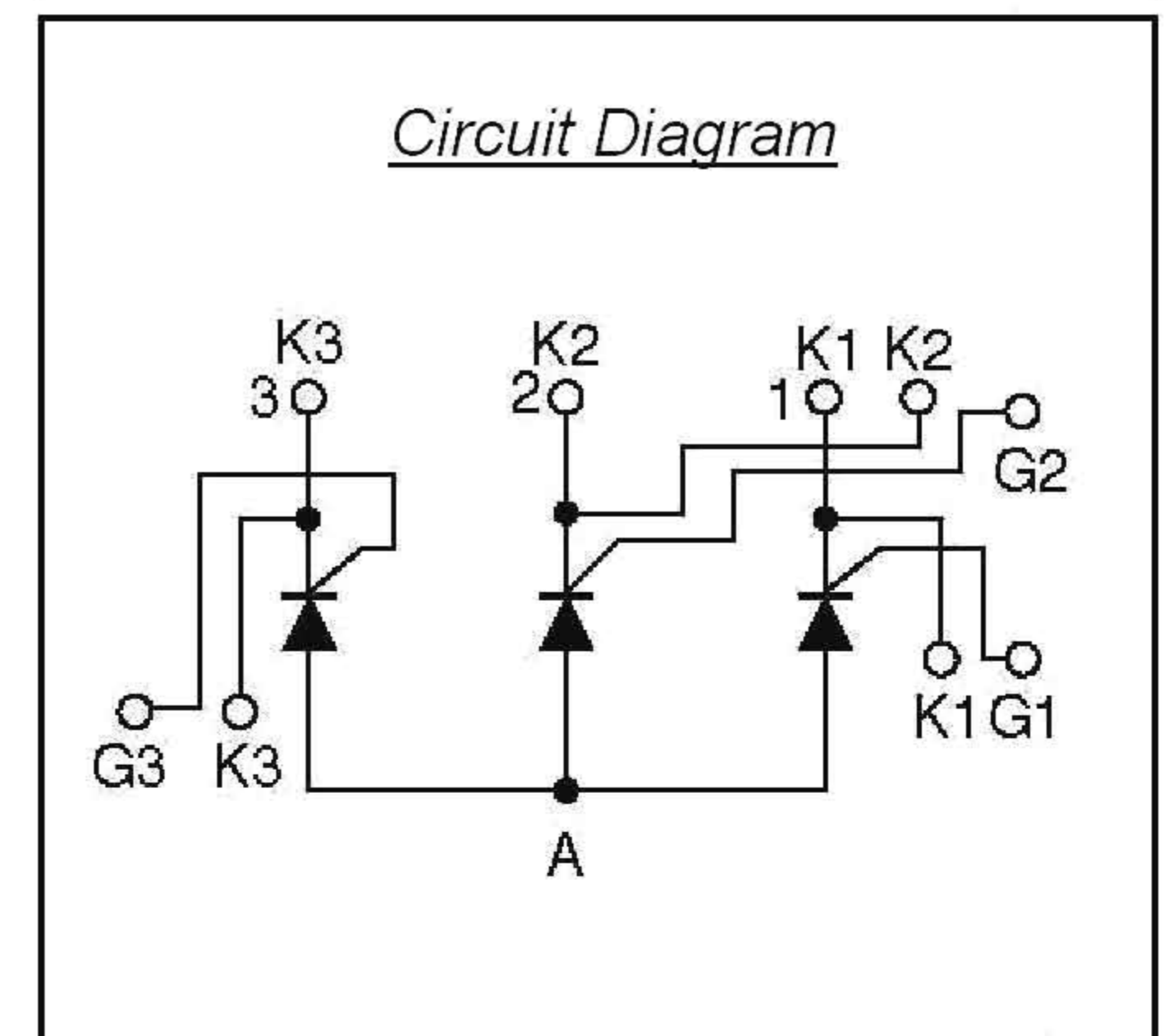
#### Applications

- Welding power Supply
- Various DC power Supply



#### Major Ratings and Characteristics :-

PARAMETERS	RHTT100A 40	UNITS
$I_{T(AV)}$ or $I_{F(AV)}$	100	A
@ $T_C$	114	°C
$I_{T(RMS)}$	157	A
@ $T_C$	114	°C
$I_{TSM}$ @50Hz	3200	A
$I^2t$ @50Hz	51	KA <sup>2</sup> s
$V_{DRM}$ / $V_{RRM}$	400	V
$T_J$	- 30 to 150	°C
$T_{STG}$	- 30 to 125	°C





# THYRISTORS MODULE (NON ISOLATED TYPE)

## ELECTRICAL SPECIFICATIONS

Type : RHTT 100 A

### Voltage Ratings

Type number	Voltage Code	$V_{DRM}/V_{RRM}$ , max repetitive peak and off-state voltage V	$V_{RSM}$ , maximum non-repetitive peak voltage V	$I_{DRM}/I_{RRM}$ max. @ $T_C = 125^\circ\text{C}$ mA
RHTT 100A 40	04	400	480	15

### On - state Conduction

Parameter	RHTT 100A40	Units	Conditions
$I_{T(AV)}$ Max. average on-state current @ case temperature	100	A	Single phase, half wave, $180^\circ$ conduction
	114	$^\circ\text{C}$	
$I_{T(RMS)}$ Max RMS on-state current	157	A	Single phase, half wave, $180^\circ$ conduction, $T_C = 114^\circ\text{C}$
$I_{TSM}$ or $I_{FSM}$ Max. peak, half-cycle non-repetitive surge current	3200	A	$t = 10\text{ms}$ $T_J = 25^\circ\text{C}$ No voltage reapplied
$I^2t$ Maximum $I^2t$ for fusing	51	$\text{KA}^2\text{s}$	$t = 10\text{ms}$ $T_J = 25^\circ\text{C}$ No voltage reapplied
$V_{TM}$ Max peak on state voltage	1.2	V	$314\text{A}_{\text{Peak}}$ $T_J = 25^\circ\text{C}$ $180^\circ$ conduction
$di/dt$ Max. non-repetitive rate of rise of turned on current	50	$\text{A}/\mu\text{s}$	$I_G = 200\text{mA}$ , $T_J = 25^\circ\text{C}$ , $V_D = \frac{1}{2}V_{DRM}$ , $dI_G/dt = 1\text{A}/\mu\text{s}$
$I_H$ Maximum holding current typ.	70	mA	$T_J = 25^\circ\text{C}$ , anode supply = 6V, resistive load, gate open circuit

### BLOCKING

$I_{RRM}$ or $I_{DRM}$ Max. peak reverse and off-state leakage current at $V_{RRM}$ , $V_{DRM}$	15	mA	$T_C = 125^\circ\text{C}$ , gate open circuit
$dv/dt$ Max. critical rate of rise of off-state Voltage	50	$\text{V}/\mu\text{s}$	$T_J = 125^\circ\text{C}$ linear to $0.67V_{DRM}$ , gate open circuit

### THERMAL AND MECHANICAL SPECIFICATIONS

$T_J$ Junction operating temperature range	-30 to 150	$^\circ\text{C}$	
$T_{stg}$ Storage temp. range	-30 to 125	$^\circ\text{C}$	
$R_{thJC}$ Max. internal thermal resistance, junction to case	0.3	$^\circ\text{C}/\text{W}$	$\frac{1}{3}$ module
T Mounting torque $\pm 10\%$ Module to heatsink Busbar to module	4.7	Nm	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.
	2.7	Nm	
Wt Approximate weight	170	g	

### ELECTRICAL SPECIFICATION

#### TRIGGERING

$V_{GT}$ Max. gate voltage required to trigger	2.0	V	$T_J = 25^\circ\text{C}$ , anode supply 6 V resistive load
$I_{GT}$ Max. gate current required to trigger	150	mA	
$P_{GM}$ Max. peak gate power	10	W	
$P_{G(AV)}$ Max. average gate power	1.0	W	
$I_{GM}$ Max. peak gate current	3.0	A	
$-V_{GM}$ Max. peak negative gate voltage	5.0	V	

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