

Thyristor/Thyristor Module, 25A

Features

- Improved glass passivation for high reliability
- Exceptional stability at high temperatures
- High di/dt and dv/dt capabilities
- Low thermal resistance

**Voltage Ratings** ($T_A = 25^\circ\text{C}$, unless otherwise noted)

Type number	Voltage Code	V_{RRM} , Maximum repetitive peak reverse voltage (V)	V_{RSM} , Maximum non-repetitive peak reverse voltage (V)	V_{DRM} , Maximum repetitive peak off-state voltage (V)	I_{RRM} , Maximum reverse leakage current @ T_{JMAX} (mA)
NTT27A	20	200	300	200	5.0
	40	400	500	400	
	60	600	700	600	
	80	800	900	800	
	100	1000	1100	1000	
	120	1200	1300	1200	
	160	1600	1700	1600	

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

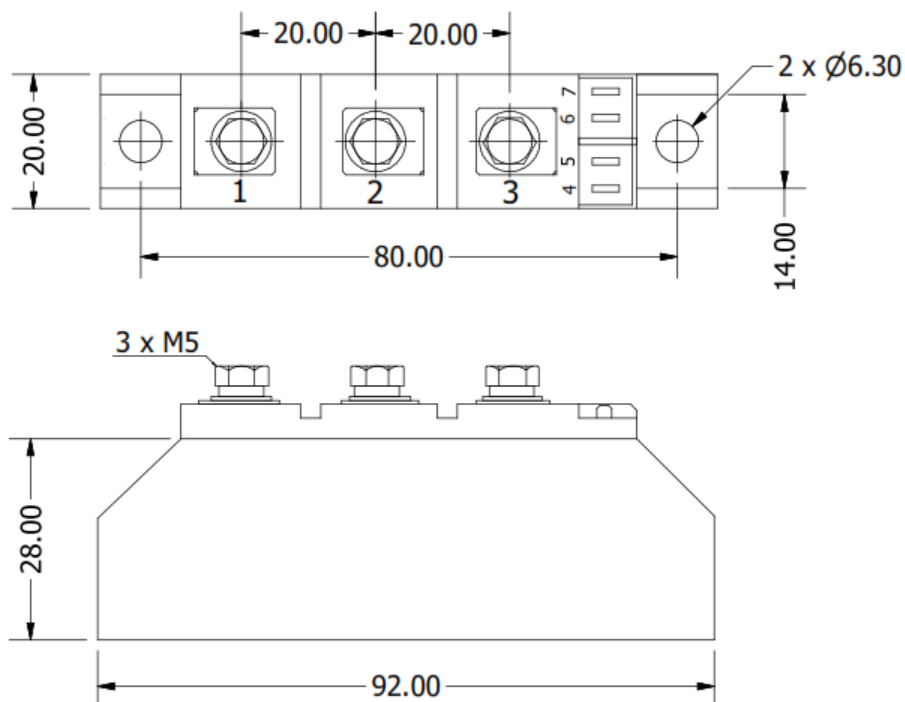
Parameter	Symbol	Values	Units
Maximum average forward current @ $T_J = 85^\circ\text{C}$	$I_{T(AV)}$	25	A
Maximum average RMS forward current	$I_{T(RMS)}$	40	A
Maximum non-repetitive surge current	I_{TSM}	550	A
Maximum I^2t for fusing	I^2t	1500	A^2s
Forward voltage drop	V_{TM}	1.1	V
Critical rate of rise of on-state current	di/dt	150	$\text{A}/\mu\text{s}$
Critical rate of rise of off-state voltage	dv/dt	1000	$\text{V}/\mu\text{s}$
Gate current required to trigger	I_{GT}	150	mA
Gate voltage required to trigger	V_{GT}	3	V
Maximum holding current	I_H	150	mA
Maximum latching current	I_L	350	mA
Isolation voltage	V_{ISO}	3000	V

Thermal & Mechanical Specifications ($T_A = 25^\circ\text{C}$ unless otherwise noted)

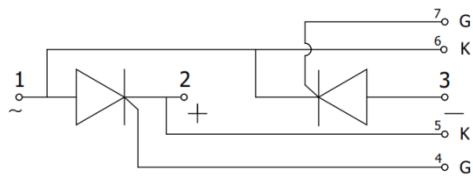
Parameter	Symbol	Values	Units
Operating junction temperature range	T_J	-40 to +125	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$
Thermal resistance, junction to case	$R_{th(JC)}$	0.9	$^\circ\text{C}/\text{W}$
Mounting torque	to heatsink	F	Nm
	to terminals		
Weight	W	100	g

Package Outline

(All dimensions in mm)



Circuit Configuration

Circuit Description	Configuration Code	Circuit Drawing
Series Connection (doubler circuit)	N	 The circuit drawing shows a series connection of two diodes. The first diode has its anode connected to pin 1 and its cathode connected to pin 2. The second diode has its anode connected to pin 2 and its cathode connected to pin 3. The circuit is labeled with pins 1, 2, 3, 4, 5, 6, and 7. Pins 4 and 5 are labeled 'K' (Cathode) and pins 6 and 7 are labeled 'G' (Anode).

Ordering Table

NTT	27	A	N	160
1	2	3	4	5

- 1 – Power Module
 - > DD = Diode-Diode
 - > TD = Thyristor-Diode
 - > TT = Thyristor-Thyristor
- 2 – Current Rating = I_F (AV)
- 3 – Package Type
- 4 – Circuit Configuration (see Table)
- 5 – Voltage Code (see Voltage Ratings table)