

Diode/Diode Module, 47A

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_{RSM} , Maximum non-repetitive peak reverse voltage	V_{DRM} , Maximum repetitive peak off-state voltage	I_{RRM} , Maximum reverse leakage current @ T_{JMAX}
		(V)	(V)	(V)	(mA)
NDD46A	20	200	300	200	2.0
	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)

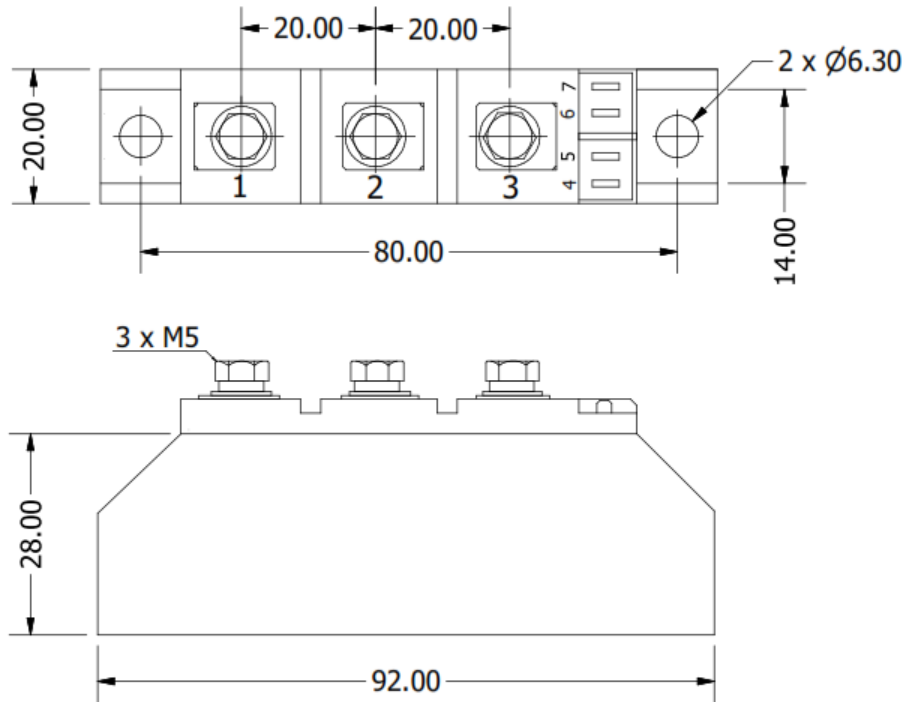
Parameter	Symbol	Values	Units
Maximum average forward current @ $T_J = 85^\circ\text{C}$	$I_{F(AV)}$	47	A
Maximum average RMS forward current	$I_{F(RMS)}$	74	A
Maximum non-repetitive surge current	I_{FSM}	700	A
Maximum I^2t for fusing	I^2t	2450	A^2s
Forward voltage drop	V_{FM}	1.15	V
Isolation voltage	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	$R_{th(JC)}$	0.8	$^\circ\text{C}/\text{W}$
Mounting torque	to heatsink	$4 \pm 15\%$	Nm
	to terminals	$3 \pm 15\%$	
Weight	W	100	g

Package Outline

(All dimensions in mm)



Circuit Configuration

Circuit Description	Configuration Code	Circuit Drawing
Series Connection (doubler circuit)	N	
Common Anode	A	
Common Cathode	K	



Ordering Table

<i>NDD</i>	<i>46</i>	<i>A</i>	<i>N</i>	<i>160</i>
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)