Phase Control Thyristors, 175A

Features

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

TO-209AC (TO-93)

Voltage Ratings (T_J = 25°C, unless otherwise noted)

Type number	Voltage Code	V_{DRM}/V_{RRM}, Maximum repetitive peak and off-state voltage (V)	V_{RSM}, Maximum non-repetitive peak voltage (V)	I_{DRM}/I_{RRM}, Maximum at T_J=T_J Maximum (mA)
175NT	20	200	300	30
	40	400	500	
	60	600	700	
	80	800	900	
	100	1000	1100	
	120	1200	1300	
	160	1600	1700	

Electrical Ratings (T_J = 25°C, unless otherwise noted)

Parameters		Symbol	Values	Units
Maximum on-state average current	T_J = 85°C	$I_{T(AV)}$	175	A
Maximum RMS on-state current		$I_{T(RMS)}$	275	A
Maximum peak, one cycle non-repetitive surge current	T_J = 125°C, 10 ms	I_{TSM}	4700	A
Maximum I^2t for fusing	T_J = 125°C, 10 ms	I^2t	110450	A^2s
Maximum peak on-state voltage	T_J = 125°C	V_{TM}	1.75	V
Maximum holding current	T_J = 25°C	I_H	300	mA
Maximum latching current	T_J = 25°C	I_L	600	mA
Maximum rate of rise of turn-on current	T_J = T_J max.	di/dt	150	A/µs
Maximum critical rate of rise of off-state voltage	T_J = T_J max.	dv/dt	500	V/µs
Maximum gate current required to trigger	T_J = 25°C	I_{GT}	200	mA
Maximum gate voltage required to trigger	T_J = 25°C	V_{GT}	3	V

Thermal and Mechanical Specifications (T_J = 25°C, unless otherwise noted)

Parameters	Symbol	Values	Units
Maximum operating junction temperature range	T_J	- 40 to +125	°C
Maximum storage temperature range	T_{Stg}	- 40 to +150	°C
Maximum thermal resistance, junction to case	$R_{th(JC)}$	0.11	°C/W
Mounting torque ± 10%	F	30	Nm
Approximate weight	W	295	g

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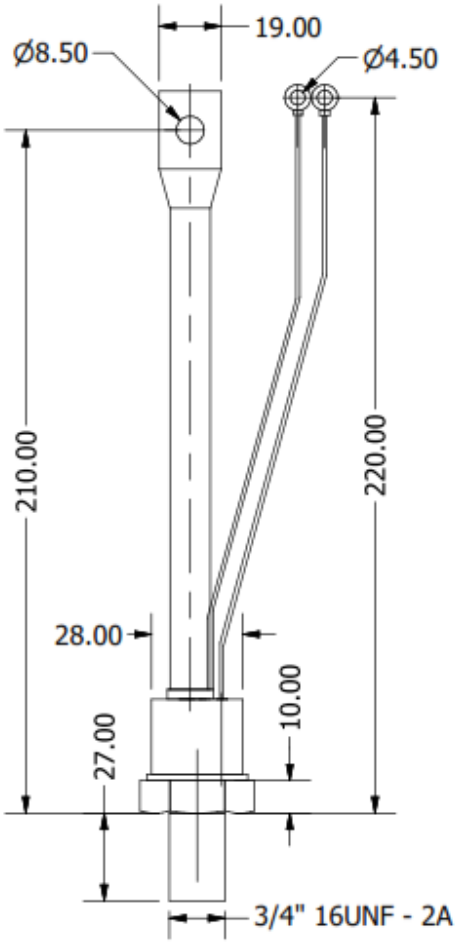
Package Outline

(All dimensions in mm)



Ordering Table

175	*NT*	*120*
1	2	3

1 – Current Rating = $I_{F\ (AV)}$
2 – Phase Controlled Thyristor (SCR)
3 – Voltage x 10 = V_{RRM}

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