

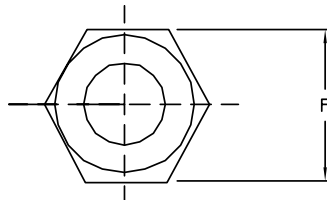
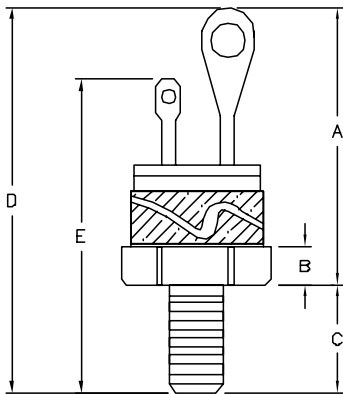
Absolute Maximum Ratings:

Characteristic	Symbol	Rating
Peak Repetitive Off State Blocking Voltage	V_{RRM} or V_{DRM}	600V
Peak Non Repetitive Reverse Voltage	V_{RSM} or V_{DSM}	720V
RMS On State Current	$I_{T(RMS)}$	25A
Average On State Current, ($T_C = -40^{\circ}\text{C}$ to $+65^{\circ}\text{C}$)	$I_{T(AV)}$	16A
Peak Non Repetitive Surge Current (One cycle 60Hz preceded and followed by rated current and voltage)	I_{TSM}	150A
Circuit Fusing Considerations ($T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$, $t = 1$ to 8.3 ms)	-	93 A2s
Peak Gate Power	P_{GM}	5W
Average Gate Power	$P_{G(AV)}$	0.5W
Peak Forward Gate Current	I_{GM}	1.2A
Peak Gate Voltage Forward Reverse	V_{FGM} V_{RGM}	10V 5V
Stud Torque	-	30in/lb
Operating Junction Temperature Range	T_J	-65°C to $+125^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-65°C to $+150^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.
Peak Forward or Reverse Blocking Current	I_{DAV} , I_{RAV}	$V_D = 600\text{V}$, gate open, $T_J = 125^{\circ}\text{C}$	-	-	2.5
Peak Forward or Reverse Blocking Current	I_{DRM} , I_{RRM}	$V_D = 600\text{V}$, gate open $T_J = 25^{\circ}\text{C}$ $T_J = 125^{\circ}\text{C}$	-	-	10 20
Peak On State Voltage	V_{TM}	$I_{TM} = 50.3\text{A}$ Peak Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.	-	-	2
Gate Trigger Current (Continuous dc)	I_{GT}	$V_{AK} = 12\text{V}$, $R_L = 50\Omega$; $T_C = -65^{\circ}\text{C}$	-	-	80
		$V_{AK} = 12\text{V}$, $R_L = 50\Omega$; $T_C = 25^{\circ}\text{C}$	-	-	40
Gate Trigger Voltage (Continuous dc)	V_{GT}	$V_{AK} = 12\text{V}$, $R_L = 50\Omega$; $T_C = -65^{\circ}\text{C}$	-	-	3
		$V_{AK} = 12\text{V}$, $R_L = 50\Omega$; $T_C = 25^{\circ}\text{C}$	-	0.65	2

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.
Holding Current (Gate Open)	I_H	$V_{AK} = 12V, T_c = 25^\circ C$	-	7.3	50
Gate Controlled Turn On Time	V_{GD}	$V_D = 600V; R_L = 50\Omega; T_J = 125^\circ C$	0.25	-	-
Critical Rate of Rise of Off State Voltage	dv/dt	$V_D = 600V; \text{Exponential Waveform}, T_c = 125^\circ C$	-	30	-



Dimensions	
A	1.15
B	0.114 0.11
C	0.453 0.422
D	1.603 1.572
E	1.243 1.132
F	0.562 0.544

Dimensions : Inches

Part Number Table

Description	Part Number
Thyristor, 16A, 600V, TO-208AA (TO-48)	2N690

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