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SPC-F005.DWG

REVISIONS

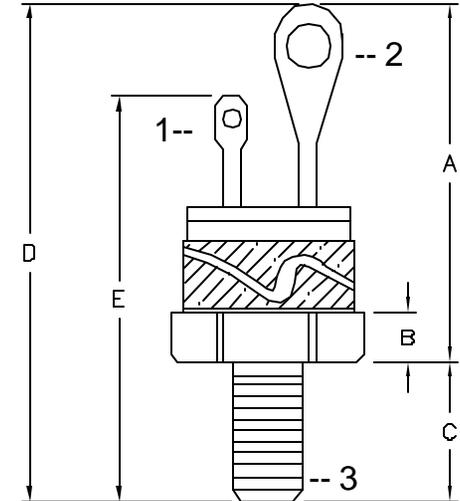
DOC. NO. SPC-F005 * Effective: 7/5/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1975	A	RELEASED	JN	05/02/08	JN	05/02/08	JN	05/02/08

Glass Passivated Junctions and Center Gate Fire for Greater Parameter Uniformity and Stability

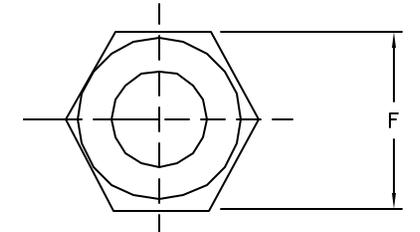
Absolute Maximum Ratings:	
Peak Repetitive Off State Blocking Voltage, V_{RRM} OR V_{DRM}	600V
Peak Non Repetitive Reverse Voltage, V_{RSM} OR V_{DRM}	720V
RMS On State Current, $I_{T(RMS)}$	25A
Average On State Current, ($T_{C= -40 \text{ to } 65^\circ\text{C}}$), $I_{T(AV)}$	16A
Peak Non Repetitive Surge Current, I_{TSM}	150A
(One cycle 60Hz preceded and followed by rated current and voltage)	
Circuit Fusing Considerations	93 A2s
($T_J = -40 \text{ to } 125^\circ\text{C}$, $t = 1 \text{ to } 8.3 \text{ ms}$)	
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 V_{FGM}	10V
REVERSE V_{RGM}	5V
Stud Torque	30in/lb
Operating Junction Temperature Range, T_J	-65 to +125 °C
Storage Temperature Range, T_{sg}	-65 to +150 °C

SYM.	INCHES	
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



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

Parameter	Symbol	Test Conditions	Min	Typ	Max
Peak Forward or Reverse Blocking Current	I_{DAV}, I_{RAV}	$V_D = 600V$, gate open, $T_J = 125^\circ\text{C}$	-	-	2.5
Peak Forward or Reverse Blocking Current	I_{DRM}, I_{RRM}	$V_D = 600V$, gate open, $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	-	-	10 20
Peak On State Voltage	V_{TM}	$I_{TM} = 50.3A$ Peak Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.	-	-	2
Gate Trigger Current (Continuous dc)	I_{GT}	$V_{AK} = 12V, R_L = 50 \text{ OHMS}$ $T_C = -65^\circ\text{C}$	-	-	80
		$V_{AK} = 12V, R_L = 50 \text{ OHMS}$ $T_C = 25^\circ\text{C}$	-	-	40
Gate Trigger Voltage (Continuous dc)	V_{GT}	$V_{AK} = 12V, R_L = 50 \text{ OHMS}$ $T_C = -65^\circ\text{C}$	-	-	3
		$V_{AK} = 12V, R_L = 50 \text{ OHMS}$ $T_C = 25^\circ\text{C}$	-	0.65	2
Holding Current (Gate Open)	I_H	$V_{AK} = 12V$, $T_C = 25^\circ\text{C}$	-	7.3	50
Gate Controlled Turn On Time	V_{GD}	$V_D = 600V$ $R_L = 50 \text{ OHMS}$ $T_J = 125^\circ\text{C}$	0.25	-	-
Critical Rate of Rise of Off State Voltage	dv/dt	$V_D = 600V$, Exponential Waveform, $T_C = 125^\circ\text{C}$	-	30	-



DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Jason Nash	05/02/08
CHECKED BY:	DATE:
Jason Nash	05/02/08
APPROVED BY:	DATE:
Jason Nash	05/02/08

DRAWING TITLE:		25 Amp, 1/2" Press Fit Stud Mount SCR	
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N690	02H3004.DWG	A
SCALE: NTS	U.O.M.: MILLIMETERS	SHEET: 1 OF 1	