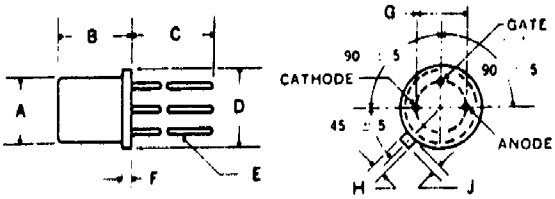
New Jersey Semi-Conductor Products, Inc.

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AA100-AA104
AA107-AA111
AA114-AA118



	INCHES	MILLIMETERS
A	.178-.195 DIA	4.52-4.95 DIA
B	.170-.210	4.31-5.33
C	5 MIN.	12.70 MIN.
D	.209-.230 DIA	5.31-5.84 DIA
E	.017 ± .002 DIA .001 DIA	432 ± .051 .025
F	.020 MAX.	.508 MAX.
G	.100±.010 DIA.	2.54±.254 DIA.
H	.041±.005	1.04±.127
J	.028-.048	.711-1.22

SCRs
.5A, Planar

FEATURES
- Maximum Gate Trigger Current: 2, 20 or 200μA
- Tight Gate Trigger Voltage Range: .44 to .6V
- Voltage Ratings: to 400V
- Specified for dv/dt and Switching Time

ABSOLUTE MAXIMUM RATINGS

	AA100 AA107 AA114	AA101 AA108 AA115	AA102 AA109 AA116	AA103 AA110 AA117	AA104 AA111 AA118
Repetitive Peak Off-State Voltage, V_{DRM}	60V	100V	200V	300V	400V
Repetitive Peak Reverse Voltage, V_{RRM}	60V	100V	200V	300V	400V
Non-Repetitive Peak Reverse Voltage, V_{RSM}	80V	150V	300V	400V	500V
Non-Repetitive Peak Off-State Voltage, V_{DSM}			500V		
D.C. On-State Current, I_T					
75°C Ambient			250mA		
100°C Case			500mA		
Repetitive Peak On-State Current, I_{TRM}			up to 30A		
Peak One Cycle Surge (Non-Rep.) On-State Current, I_{TSM}			5A		
Peak Gate Current, I_{GM}			250mA		
Average Gate Current, $I_{G(AV)}$			25mA		
Reverse Gate Voltage V_{GR}			6V		
Operating and Storage Temperature Range			−65°C to +150°C		

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

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ELECTRICAL SPECIFICATIONS (at 25°C unless noted)

Parameter	Symbol	Min.	Typical	Max.	Units	Test Conditions
SUBGROUP 1						
Visual & Mechanical	—	—	—	—	—	—
SUBGROUP 2 (25°C TESTS)						
Off-State Current	I_{DRM}	—	.01	0.1	μA	R_{GK} = 1K, V_{DRM} = Rating
Reverse Current	I_{RRM}	—	.01	0.1	μA	R_{GK} = 1K, V_{RRM} = Rating
Reverse Gate Current	I_{GR}	—	0.1	0.2	μA	V_{GR} = 2V
Gate Trigger Current	I_{GT}					R_{GS} = 10K, V_D = 5V
AA100-104		—	0.2	2.0	μA	
AA107-111		—	2.0	20	μA	
AA114-118		—	20	200	μA	
Gate Trigger Voltage	V_{GT}	0.44	0.52	0.60	V	R_{GS} = 100Ω, V_D = 5V
On-State Voltage	V_T	—	1.1	1.5	V	I_T = 1.0 A (pulse)
Holding Current	I_H	0.3	0.5	2.0	mA	R_{GK} = 1K
SUBGROUP 3 (25°C TESTS)						
Off-State Voltage — Critical Rate of Rise	dv/dt	50	100	—	V/μs	R_{GK} = 1K, V_D = 30V
Gate Trigger — on Pulse Width	t_{gt} (on)	—	0.5	2.0	μs	I_G = 10mA, I_T = 1A, V_D = 30V
Delay Time	t_d	—	0.6	—	μs	I_G = 10mA, I_T = 1A, V_D = 30V
Rise Time	t_r	—	0.4	—	μs	I_G = 10mA, I_T = 1A, V_D = 30V
Circuit Commutated Turn-off Time	t_q	—	20	50	μs	I_T = 1A, I_R = 1A, R_{GK} = 1K
SUBGROUP 4 (125°C TESTS)						
Off-State Current	I_{DRM}	—	10	20	μA	R_{GK} = 1K, V_{DRM} = Rating
Reverse Current	I_{RRM}	—	30	100	μA	R_{GK} = 1K, V_{RRM} = Rating
Gate Trigger Voltage	V_{GT}	0.15	0.2	—	V	R_{GS} = 100Ω, V_D = 5V
Holding Current	I_H	0.2	0.4	1.5	mA	R_{GK} = 1K

Note: Blocking voltage ratings apply over the full operating temperature range, provided the gate is connected to the cathode through a resistor, 1000 ohms or smaller, or other adequate bias is used.

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