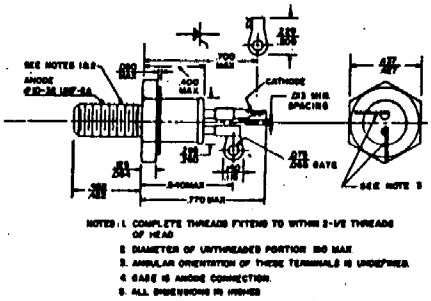
New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

2N1773

SILICON CONTROLLED RECTIFIER



Type	Minimum Forward Breakover Voltage (V_{BO})† T_J = −65°C to +125°C	Repetitive Peak Reverse Voltage (PRV)† T_J = −65°C to +125°C	Transient Peak Reverse Voltage (Non-recurrent < 5 Millisec.) T_J = −65°C to +125°C
2N1773	150 Volts*	150 Volts*	225 Volts*

†Values apply for zero or negative gate voltage only. Maximum case to ambient thermal resistance for which maximum PRV ratings apply equals 18°C/watt.

Test	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Peak Reverse and Forward Blocking Current†	i_R and i_R	——	4.0	8.0	ma	T_J = 125°C, Gate Open 150
Full Cycle Avg. Reverse and Forward Blocking Current†	$I_{R(AV)}$ and $I_{R(AV)}$	——	2.0	4.0*	mAdc	T_C = 60°C, I_O = 4.7A, half sine wave 180° Conduction Angle 150
Gate Current to Fire	I_{GF}	——	10	15	mAdc	V_{AC} = 12Vdc, T_J = 25°C, R_L = 250 ohms
		——	20	30*	mAdc	V_{AC} = 12Vdc, T_J = −65°C, R_L = 250 ohms
		——	4	8	mAdc	V_{AC} = 12Vdc, T_J = 125°C, R_L = 250 ohms
Gate Voltage to Fire	V_{GF}	——	1.3	2.0*	Vdc	V_{AC} = 12 Vdc, T_J = −65° to + 125°C, R_L = 250 ohms
		0.3*	0.7	——	Vdc	v_{AC} = Rated, T_J = 125°C, R_L = 250 ohms
Peak Forward Voltage Drop	v_F	——	1.6	1.85	v	T_J = 25°C, i_F = 15 a (single sinusoidal pulse, 4 ms wide)
Holding Current	I_H	——	8.0	——	mAdc	Anode Supply = 6 Vdc, T_J = 25°C
Turn-on Time	$t_d + t_r$	——	1.0	——	μsec	T_J = 25°C, i_F = 10 a, v_{AC} = Rated Gate Supply: 7 volt open circuit, 20 ohm, 0.1 μsec max. rise time.
Turn-off Time	t_{off}	——	15	——	μsec	T_J = 125°C, i_F = 5 a, i_R = 5 a v_{AC} (Reapplied) = Rated. Rate of Rise of Reapplied Forward Blocking Voltage = 20 volts per microsecond maximum.
Thermal Resistance	θ_{J-C}	——	1.5	3.1	°C/Watt	Junction to Case.

†Values apply for zero or negative gate voltage. Maximum case to ambient thermal resistance for which maximum PRV ratings apply = 18°C per watt.

*Indicates data included on JEDEC type number registration.