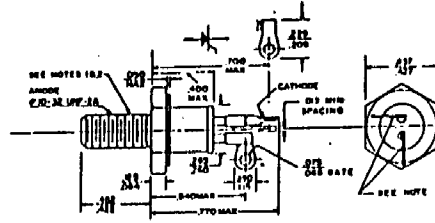


2N1778



NOTES: 1. COMPLETE THREADS EXTEND TO WITHIN 2-1/2x THREADS OF HEAD.
2. DIAMETER OF UNTHREADED PORTION .005 MAX.
3. ANGULAR ORIENTATION OF THESE TERMINALS IS UNDEFINED.
4. CASE IS ANODE CONNECTION.
5. ALL DIMENSIONS IN INCHES.

Type	Minimum Forward Breakover Voltage (V _m)† 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
(2N1778)	500 Volts*	500 Volts*	600 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.

CHARACTERISTICS

Test	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Peak Reverse and Forward Blocking Current† (2N1778)	i _R and i _F	—	1.0	2.0	ma	T _J = 125°C, Gate Open V _{AR} = V _{FR} = 500
Full Cycle Avg. Reverse and Forward Blocking Current†	I _{R(AV)} and I _{F(AV)}	—	0.5	1.0*	mAde	T _J = 60°C, I _m = 4.7A, half sine wave 180° Conduction Angle 500 Volts Peak
Gate Current to Fire	I _{GF}	—	10	15	mAde	V _{AR} = 12Vdc, T _J = 25°C, R _θ = 250 ohms
		—	20	30*	mAde	V _{AR} = 12Vdc, T _J = -65°C, R _θ = 250 ohms
		—	4	8	mAde	V _{AR} = 12Vdc, T _J = 125°C, R _θ = 250 ohms
Gate Voltage to Fire	V _{GF}	—	1.3	2.0*	Vdc	V _{AR} = 12 Vdc, T _J = -65° to + 125°C, R _θ = 250 ohms
		0.3*	0.7	—	Vdc	v _{AR} = Rated, T _J = 125°C, R _θ = 250 ohms
Peak Forward Voltage Drop	V _F	—	1.6	1.85	v	T _J = 25°C, i _F = 15 n (single sinusoidal pulse, 4 ms wide)
Holding Current	I _H	—	8.0	—	mAde	Anode Supply = 6 Vdc, T _J = 25°C
Turn-on Time	t _{on} + t _r	—	1.0	—	μsec	T _J = 25°C, i _F = 10 n, v _{AR} = Rated Gate Supply: 7 volt open circuit, 20 ohm, 0.1 μsec max. risetime.
Turn-off Time	t _{off}	—	15	—	μsec	T _J = 125°C, i _F = 5 n, i _H = 5 n v _{AR} (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.

