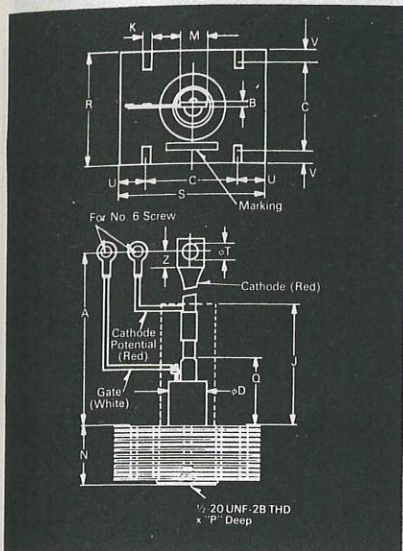




Phase Control SCR T760

300A Avg.
(470 RMS)
Up to 2000 Volts



T76 Outline

Symbol	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	9.00	10.00	228.60	254.00
B	.063	.172	1.60	4.37
C	2.980	3.020	75.69	76.71
φD		1.490		37.85
J	3.750		95.25	
K	.272	.292	6.91	7.42
M	.530	.755	13.46	19.18
N	2.030	2.150	51.56	54.61
P	.500		12.70	
Q		2.670		67.81
R	3.937	4.063	100.00	103.20
S	4.937	5.063	125.40	128.60
φT	.330	.350	8.38	8.89
U	.970	1.030	24.64	26.16
V	.470	.530	11.94	13.46
Z	.440		11.18	

Creep Distance—1.76 in. min. (44.91 mm).
Strike Distance—.81 in. min. (20.70 mm).
(In accordance with NEMA standards.)
Finish—Nickel Plate.

Approx. Weight—5 lb. (2.3 kg.).

- Angular orientation of terminals are undefined.
- Pitch diameter of 1/2-20 UNF-2A (coated) threads (ASA B1.1-1960).
- Dimension "J" denotes seated height with leads bent at right angles.



Package I² (case rupture)
rating: 15 x 10⁶ A²sec.

Voltage

Blocking State Maximums (T_J = 125°C)

- Repetitive peak forward blocking voltage, V ...
- Repetitive peak reverse voltage, V ...
- Non-repetitive transient peak reverse voltage, V ...
- t ≤ 5.0 msec, V ...

- Forward leakage current, mA peak ...
- Reverse leakage current, mA peak ...

Current

Conducting State Maximums (T_J = 125°C)

- RMS forward current, A ...
- Ave. forward current, A ...
- One-half cycle surge current^③, A ...
- 3 cycle surge current^③, A ...
- 10 cycle surge current^③, A ...
- I²t for fusing (for times ≥ 8.3 ms) A² sec. ...
- Forward voltage drop at I_{TM} = 3000A and T_J = 25°C, V ...

Switching

(T_J = 25°C)

- Typical turn-off time, I_T = 250A, T_J = 125°C, di_r/dt = 25 A/μsec, reapplied dv/dt = 20V/μsec linear to 0.8 V_{DRM}, μsec ...
- Typ. turn-on-time, I_T = 100A, V_D = 100V^④, μsec ...
- Min. critical dv/dt, exponential to V_{DRM}, T_J = 125°C, V/μsec^⑤ ...
- Min. di/dt non-repetitive, A/μsec^{①②③} ...

Example

Obtain optimum device performance for your application by selecting proper Order Code.

Type T760 rated at 300 A average with V_{DRM} = 1000V, I_{GT} = 150 ma, and standard flexible lead—order as:

Westinghouse Electric Corporation • Semiconductor Division • Youngwood, Pa. 15697

Symbol

V _{DRM}	100	200	400	600	800	1000	1200	1300	1400	1500	1600	1700	1800	2000	2200
V _{RRM}	100	200	400	600	800	1000	1200	1300	1400	1500	1600	1700	1800	2000	2200
V _{RSM}	200	300	500	700	950	1200	1450	1550	1700	1800	1900	2050	2150	2400	2600

I_{DRM}
I_{RRM}

Gate

Maximum Parameters (T_J = 25°C)

Gate current to trigger at V _D = 12V, mA	I _{GT}	150
Gate voltage to trigger at V _D = 12V, V ...	V _{GT}	3
Non-triggering gate voltage, T _J = 125°C, and rated V _{DRM} , V ...	V _{GDM}	0.15
Peak forward gate current, A ...	I _{GTM}	4
Peak reverse gate voltage, V ...	V _{GRM}	5
Peak gate power, Watts ...	P _{GM}	16
Average gate power, Watts ...	P _{G(av)}	3

Thermal and Mechanical

Min., Max. oper. junction temp., °C ...	T _J	-40 to +125
Min., Max. storage temp., °C ...	T _{stg}	-40 to +150
Max. mounting torque, in. lb.		300

Max. Thermal Impedance, °C/Watt

Junction to Ambient @ 1500 LFM Airflow ... θ_{JA} 0.18

- Consult recommended mounting procedures.
- Applies for zero or negative gate bias.
- Per JEDEC RS-397, 5.2.2.1.
- With recommended gate drive.
- Higher dv/dt ratings available, consult factory.
- Per JEDEC standard RS-397, 5.2.2.6.

Type	Voltage	Current	Turn Off	Gate Current	Leads
T 7 6 0 1 0 3 0 0				4	B Y

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