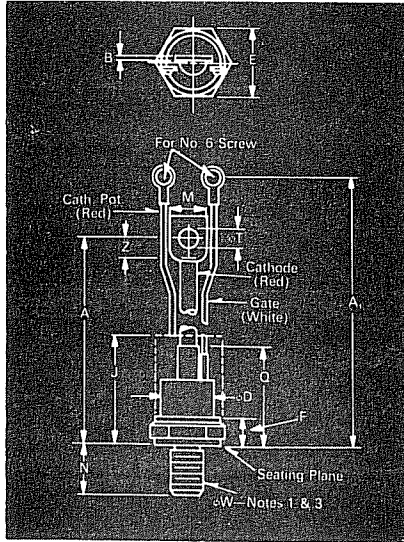




Phase Control SCR 2N4361/2N4371 Series

70 A Avg.
Up to 1400 Volts



Conforms to TO-94 Outline

Features:

- All diffused design
- Low gate current
- Low V_{TM}
- Compression Bonded Encapsulation
- Low Thermal Impedance

Voltage

Blocking State Maximums (T_J = 125°C)

Symbol	2N4361		2N4362		2N4363		2N4364		2N4365		2N4366		2N4367		2N4368*	
	2N4371	2N4372	2N4373	2N4374	2N4375	2N4376	2N4377	2N4378	2N4379	2N4380	2N4381	2N4382	2N4383	2N4384	2N4385	
Repetitive peak forward blocking voltage, V	VDRM	100	200	400	600	800	1000	1200	1400	1000	1200	1400	1200	1400	1400	
Repetitive peak reverse voltage, V	VRRM	100	200	400	600	800	1000	1200	1400	1000	1200	1400	1200	1400	1400	
Non-repetitive transient peak reverse voltage, t ₅ = 5 msec, V	VRRM	200	300	500	700	950	1200	1450	1700	1200	1450	1700	1450	1700	1700	
Forward leakage current, mA peak	IDRM	←	←	←	←	←	←	←	←	←	←	←	←	←	←	
Reverse leakage current, mA peak	IRRM	←	←	←	←	←	←	←	←	←	←	←	←	←	←	

Current

Conducting State Maximums (T_J = 125°C)

Symbol	Value
RMS forward current, A	I _{T(rms)} 110
Ave. forward current, A	I _{T(av)} 70
One-half cycle surge current, A	I _{TSM} 1600
3 cycle surge current, A	I _{TSM} 1250
10 cycle surge current, A	I _{TSM} 1080
I ² t for fusing (for times 8.3 ms) A ² sec	I ² t 10,700
Forward voltage drop at I _{TM} = 500A and T _J = 25°C, V	I _{TM} 2.5

Switching

Symbol	Value
Typical turn-off time, I _T = 50A T _J = 125°C, di/dt = 5 A/μsec, reapplied dv/dt = 20V/μsec linear to 0.8 VDRM, μsec	t _q 100
Typ. turn-on-time, I _T = 100A V _D = 100V, μsec	t _{on} 4
Min. critical dv/dt, exponential to VDRM T _J = 125°C, V/μsec	100
Min. di/dt non-repetitive, A/μsec	800

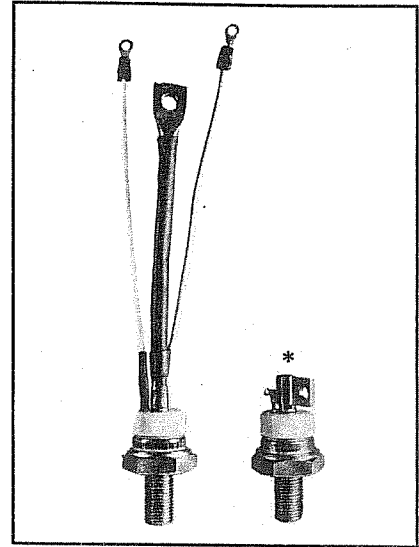
Symbol	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	5.775	6.265	146.69	159.13
A ₁	6.850	7.500	173.99	190.50
B	.055	.075	1.40	1.91
φD	.860	1.000	21.84	25.40
E	1.031	1.063	26.19	27.00
F	.255	.400	6.48	10.16
J	2.50		63.50	
M	.437	.650	11.10	16.51
N	.796	.827	20.24	21.01
Q		1.675		42.55
φT	.260	.291	6.60	7.39
Z	.250		6.35	
φW	½-20 UNF-2A			

Creep & Strike Distance:
.50 in. min. (12.85 mm).
.10 in. min. (2.54 mm). **
(In accordance with NEMA standards.)
Finish—Nickel Plate.
Approx. Weight—5 oz. (142 g).

1. Complete threads to extend to within 2½ threads of seating plane.
2. Angular orientation of terminals is undefined.
3. Pitch diameter of ½-20 UNF-2A (coated) threads (ASA B1.1-1960).
4. Dimension "J" denotes seated height with leads bent at right angles.

Applications:

- Phase control
- Power supplies
- Motor control
- Light dimmers



* For TO-83 Outline, see page S23.

Thermal and Mechanical

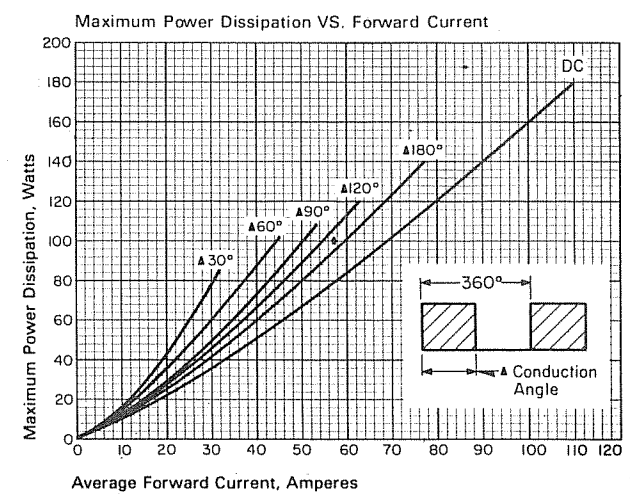
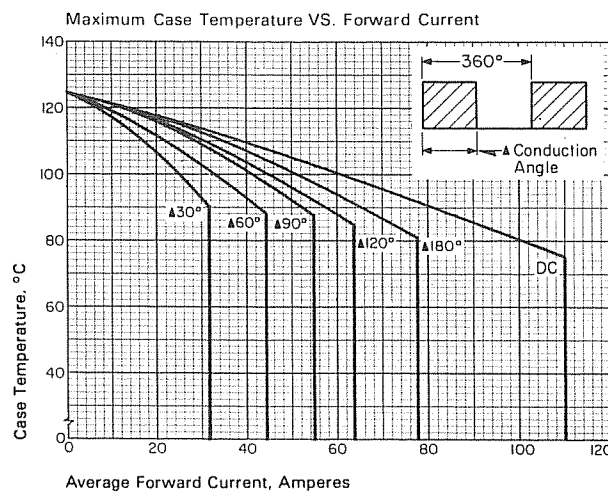
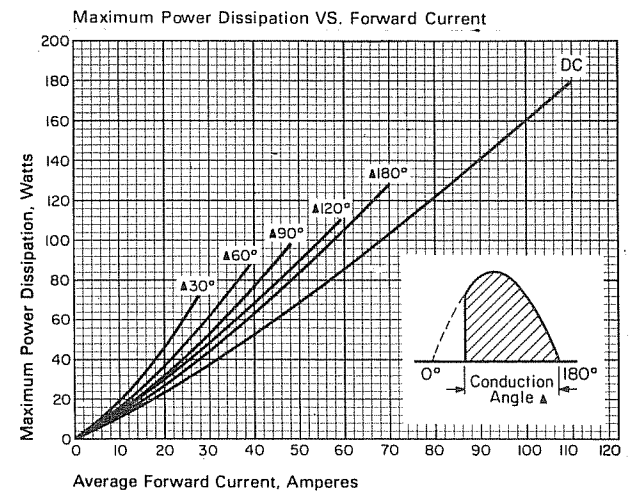
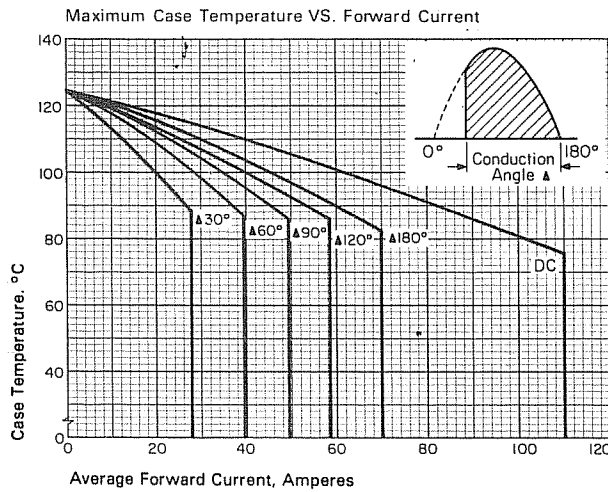
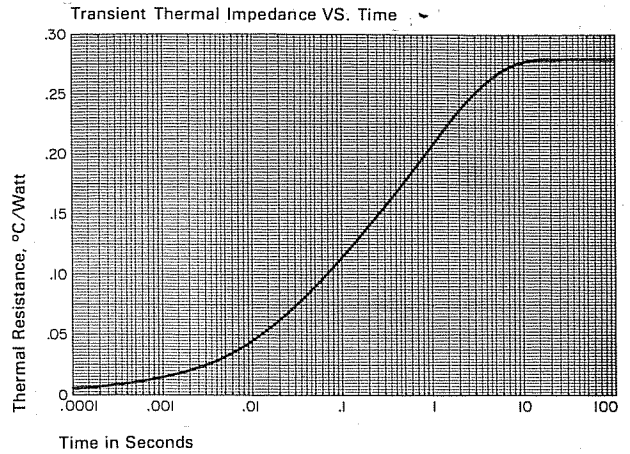
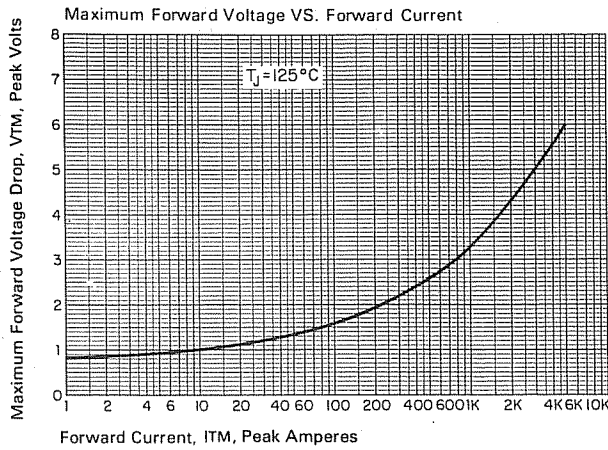
Symbol	Value
Min., Max. oper. junction temp., °C	T _J -40 to +125
Min., Max. storage temp., °C	T _{stg} -40 to +150
Max. mounting torque, in lb.	130
Max. Thermal resistance, Junction to case, °C/Watt	R _{θJC} .28
Case to sink, lubricated °C/Watt	R _{θCS} .12

- ① Consult recommended mounting procedures.
- ② Applies for zero or negative gate bias.
- ③ Per JEDEC RS-397, 5.2.2.1.
- ④ With recommended gate drive.
- ⑤ Higher dv/dt ratings available, consult factory.
- ⑥ Per JEDEC standard RS-397, 5.2.2.6.
- *2N4361 Series in TO-94 PKG.
- 2N4371 Series in TO-83 PKG.
- **Glass-to-metal seal package.

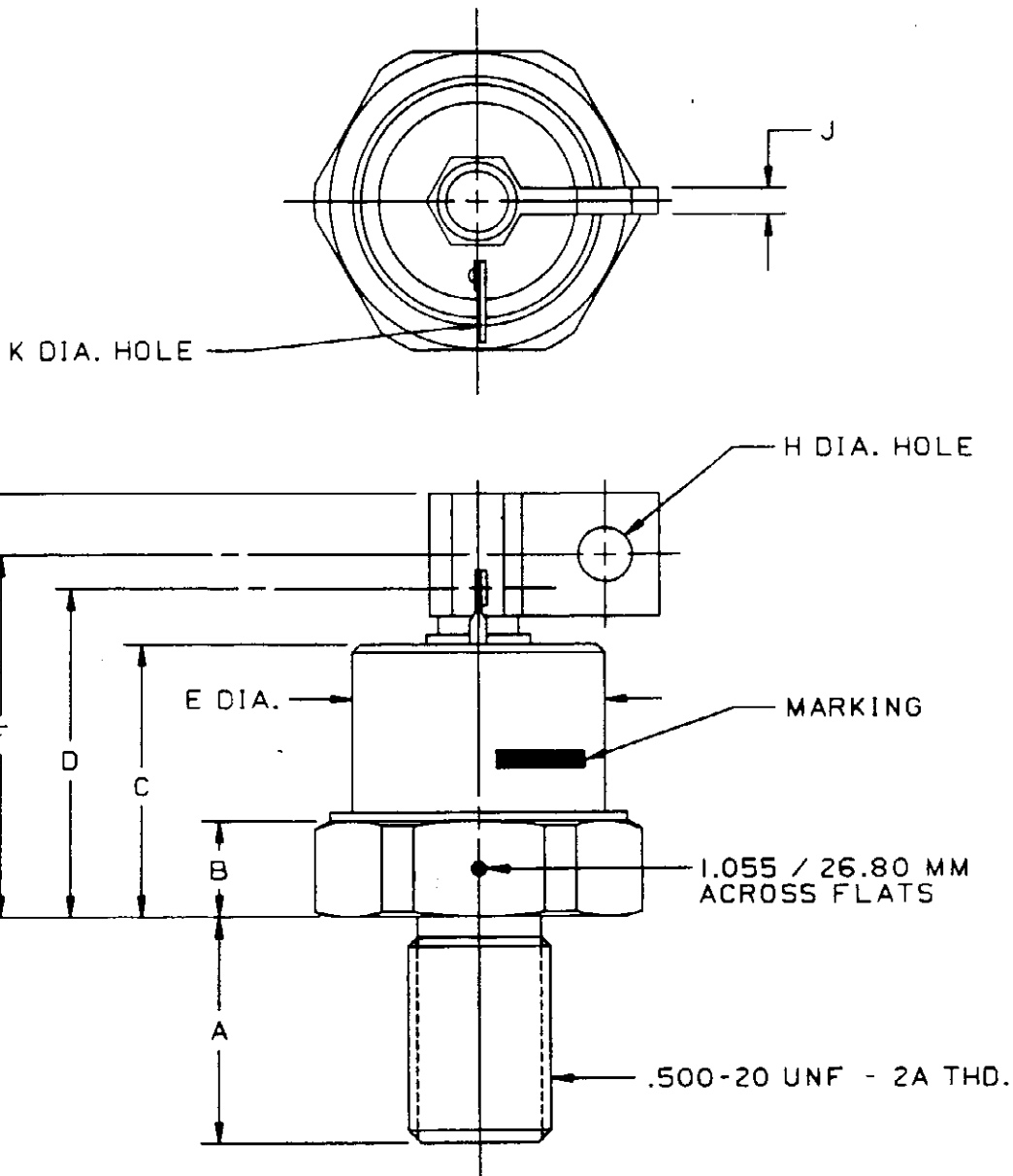
THYRISTOR

70 A Avg.
Up to 1400 Volts

Phase Control
SCR
2N4361/2N4371 Series



THYRISTOR



CASE NUMBER T51-F
 NOMINAL DIMENSIONS

STRIKE DISTANCE = .17 INCH / 4.3 MM MIN.
 CREEPAGE DISTANCE = .17 INCH / 4.3 MM MIN.

SYM.	A	B	C	D	E	F	G	H	J	K
INCHES	.81	.34	.98	1.18	.90	1.30	1.53	.193	.093	.070
MM	20.6	8.6	24.9	30.0	22.9	33.0	38.9	4.90	2.36	1.78

ALL DIMENSIONS ARE REFERENCE

T50 WITH AB LEAD GROUP

