

KK2000-FAST SWITCHING THYRISTOR

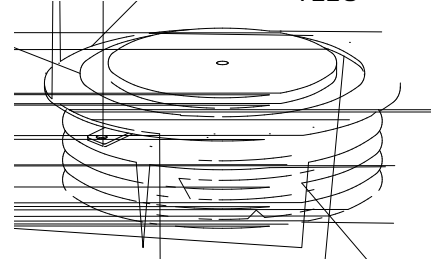
2500-2800 V_{DRM}

HIGH POWER THYRISTOR FOR INVERTER APPLICATION

Features:

- . All Diffused Structure
- . Amplifying Gate Configuration
- . Blocking capability up to 2800 volts
- . High dv/dt Capability
- . Pressure Assembled Device

T11C



ELECTRICAL CHARACTERISTICS AND RATINGS

Blocking - Off State

Device Type	V_{RRM} (1)	V_{DRM} (1)	V_{RSM} (1)
KK2000/25	2500	2500	2500
KK2000/28	2800	2800	2800

V_{RRM} = Repetitive peak reverse voltage

V_{DRM} = Repetitive peak off state voltage

V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage and off state leakage	I_{RRM}/I_{DRM}	5 mA 150 mA (3)
Critical rate of voltage rise	dv/dt (4)	1000 V/ μ s

Conducting - On State

ELECTRICAL CHARACTERISTICS AND RATINGS KK2000-FAST SWITCHING THYRISTOR**Gating**

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Peak gate power dissipation	P_{GM}		20		W	
Average gate power dissipation	$P_{G(AV)}$		4		W	
Gate-trigger current	I_{GT}		150		mA	$V_D=12V; R_L=30\Omega; T_j=+25^{\circ}C$
Gate- trigger voltage	V_{GT}	0.70	2.5		V	$V_D=12V; R_L=30\Omega; T_j=+25^{\circ}C$
Peak negative voltage	V_{GRM}		5		V	

Dynamic

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Delay time	t_d		3.0	2.5	s	$I_{TM}=1000A; V_D=67\%V_{DRM}$ Gate pulse: $V_G=30V; R_G=10\Omega$; $t_r=0.1\text{ s}; t_p=20\text{ s}$
Turn-off time (with $V_R = -5\text{ V}$)	t_q		70		s	$I_{TM}=2000\text{ A}; di/dt = -25\text{ A/s};$ $V_R=50\text{ V}; dv/dt=30V/$

