

# KP2000-POWER THYRISTOR

2600-3000 V<sub>D</sub>

**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	$I_{GT}$		200		mA	$V_D = 12\text{ V}; R_L = 3\text{ ohms}; T_j = +25\text{ }^\circ\text{C}$
Gate- trigger voltage	$V_{GT}$	0.7	3.0		V	$V_D = 12\text{ V}; R_L = 3\text{ ohms}; T_j = +25\text{ }^\circ\text{C}$
Peak negative voltage	$V_{GRM}$		5		V	

**Dynamic**

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Delay time	$t_d$		3.0	2.5	s	$I_{TM}=100\text{A}; V_D=67\%V_{DRM}$ Gate pulse: $V_G=30\text{V}; R_G=10\text{ohms};$ $t_r=0.1\text{ s}; t_p=20\text{ s}$
Turn-off time (with $V_R = -5\text{ V}$ )	$t_q$			500	s	$I_{TM} = 2000\text{A}; di/dt = -10\text{A/ s};$ $V_R = 100\text{V}; dv/dt=30\text{V/ s};$ $V_D=67\%V_{DRM}; T_j=125$
Reverse recovery charge	$Q_{rr}$				C	$I_{TM}=2000\text{A } di/dt=-10\text{A/ s};$ $V_R=100\text{V}; T_j=125$

**THERMAL AND MECHANICAL CHARACTERISTICS AND RATINGS**

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	$T_j$	-40	+125		$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-40	+140		$^\circ\text{C}$	
Thermal resistance - junction to case	$R_{(j-c)}$		0.0125		$^\circ\text{C/W}$	Double sided cooled
Thermal resistance - case to heatsink	$R_{(c-s)}$		0.004		$^\circ\text{C/W}$	Double sided cooled
Mounting force	F	31	35	33	kN	
Weight	m			0.85	kg	

\* Mounting surfaces smooth, flat and greased



