

ELECTRICAL CHARACTERISTICS AND RATINGS**KP400-POWER 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	$V_D = 12\text{ V}; R_L = 3\text{ ohms}; T_j = +25\text{ }^\circ\text{C}$
Gate- trigger voltage	V_{GT}	0.7	2.5		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	

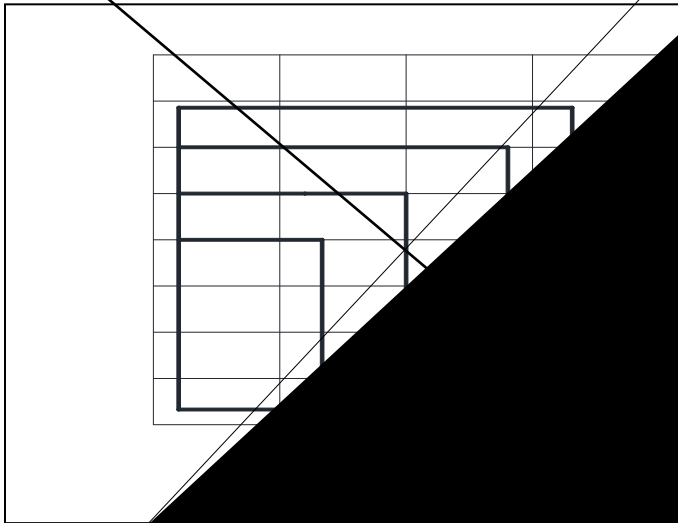
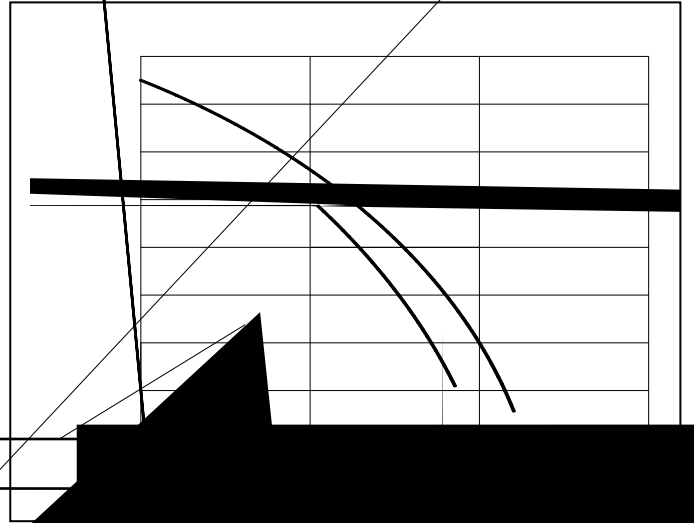
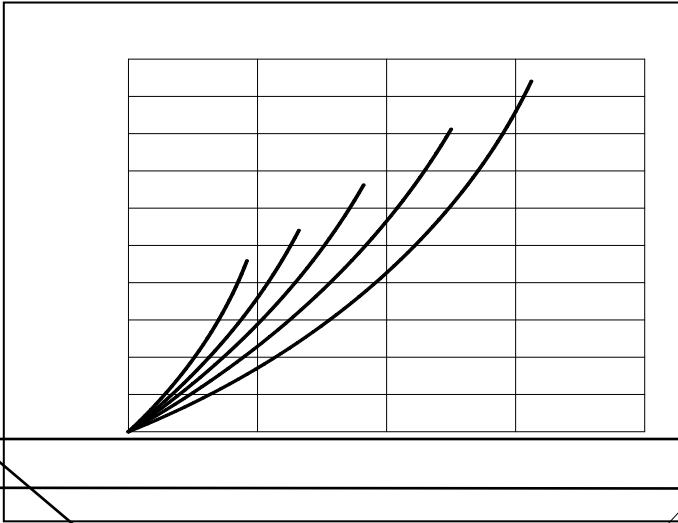
Dynamic

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Delay time	t_d		3.0	2.5	s	$I_{TM}=100\text{A}; V_D=67\%V_{DRM}$ $V_G=30\text{V}; R_G=10\text{ohms};$ $t_r=0.1\text{ s}; t_p=20\text{ s}$
Turn-off time (with $V_R = -5\text{ V}$)	t_q			350	s	$I_{TM}=500\text{A}; di/dt=-10\text{A/ s};$ $V_R=100\text{V}; dv/dt=30\text{V/ s};$ $V_D=67\%V_{DRM}; T_j=125$
Reverse recovery charge	Q_{rr}				C	$I_{TM}=500\text{A } di/dt=-10\text{A/ s};$ $V_R=100\text{V}; T_j=125$

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	$R_{(j-c)}$		0.05		$^\circ\text{C/W}$	Double sided cooled
Thermal resistance - case to heatsink	$R_{(c-s)}$		0.01		$^\circ\text{C/W}$	Double sided cooled
Mounting force	F	9	11	10	kN	
Weight	m			0.08	kg	

* Mounting surfaces smooth, flat and greased



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