WITC THY

ELECTRICAL CHARACTERISTICS AND RATINGS KK1500-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=3ohms;T_j=+25ºC
Gate- trigger voltage	V_{GT}	0.70	2.5		V	V_D=12V;R_L=3ohms;T_j=+25ºC
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=10ohms; t_r=0.1 s; tp=20 s
Turn-off time (with V_R = -5 V)	t_q		70		s	I_{TM} =1500 A; di/dt =- 25A/ s; V_R =50 V; dv/dt=30V/ s ; V_D= 67%V_{DRM};T_j=125ºC
Reverse recovery charge	Q_{rr}				C	I_{TM}=1500 A;di/dt=-10A/ s; V_R=50 V; T_j=125ºC

THERMAL AND MECHANICAL CHARACTERISTICS AND RATINGS

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+125		ºC	
Storage temperature	T_{stg}	-40	+140		ºC	
Thermal resistance - junction to case	$R_{\Theta\ (j\text{-}c)}$		0.016		ºC/W	Double sided cooled
Thermal resistance - case to heatsink	$R_{\Theta\ (c\text{-}s)}$		0.005		ºC/W	Double sided cooled
Mounting force	F	25	31	28	kN	
Weight	m			0.65	kg	

*** Mounting surfaces smooth, flat and greased**

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