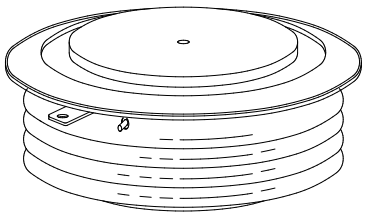
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T16D



Device Type	V_{RRM} (1)	V_{DRM} (1)	V_{RSM} (1)
KK4000/25	2500	2500	2500
KK4000/28	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 180 mA (3)
Critical rate of voltage rise	dv/dt (4)	1000 V/μs

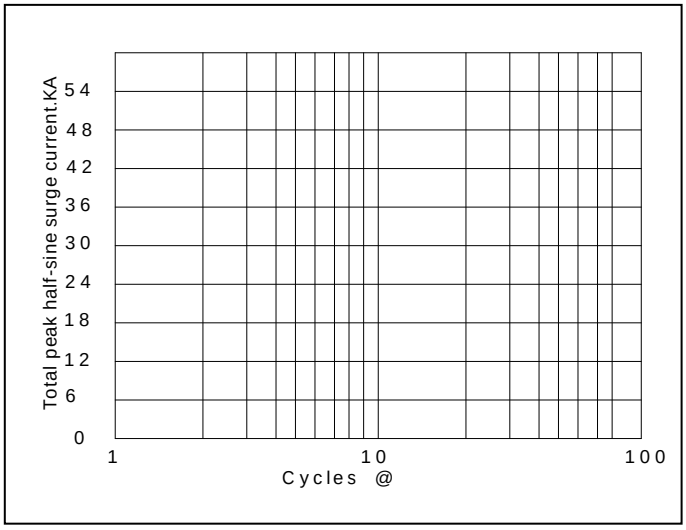
Notes
All ratings are specified for Tj=25 °C unless otherwise stated.
(1) All voltage ratings are specified for an applied 50Hz/60zHz sinusoidal waveform over the temperature range 0 to +125 °C
(2) 10 msec. Max. Pulse width
(3) Maximum value for Tj=125 °C.
(4) Minimum value for linear and exponential waveshape to 67% rated $V_{DRM.}$ Gate open, Tj=125 °C
(5) The value of di/dt is established in accordance with JB/T4193-2013.

Average value of on-state current	$I_{T(AV)}$	4000	A	Sinewave,180° conduction,Tc=55°C
RMS value of on-state current	I_{TRMS}	6280	A	Nominal value
Peak one cycle surge (non repetitive) current	I_{TSM}	48000	A	10 msec (50Hz), sinusoidal wave-shape, 180° conduction, T_j = 125 °C
I square t	I^2t	$1.2x10^7$	A^2s	10 msec
Latching current	I_L	1000	mA	V_D=12V; R_L=12ohms
Holding current	I_6			

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=+25°C
Gate- trigger voltage	V_{GT}	0.70	2.5		V	V_D=12V;R_L=3ohms;T_j=+25°C
Peak negative voltage	V_{GRM}		5		V	

Delay time	t_d		3.0	2.5	μs	I_{TM}=1000A; V_D=67%V_{DRM} Gate pulse: V_G=30V; R_G=10ohms; t_r=0.1μs; t_p=20μs
Turn-off time (with V_R = -5 V)	t_q		70		μs	I_{TM} =4000 A; di/dt =- 25 A/μs; V_R =50 V; dv/dt=30V/μs ; V_D= 67%V_{DRM};T_j=125°C
Reverse recovery charge	Q_{rr}				μC	I_{TM}=4000 A;di/dt=-10A/μs; V_R=50 V; T_j=125°C

Operating temperature	T_j	-40	+125		°C	
Storage temperature	T_{stg}	-40	+140		°C	
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.006		°C/W	Double sided cooled
Thermal resistance - case to heatsink	$R_{\Theta(c-s)}$		0.0015		°C/W	Double sided cooled
Mounting force	F	65	85	80	kN	
Weight	m			1.9	kg	


Total peak half-sine surge current.KA
54
48
42
36
30
24
18
12
6
0
1
10
100
Cycles @

