



**Features:**

- n Center amplifying gate
- n Metal case with ceramic insulator
- n Low on-state and switching losses

**Typical Applications:**

- n AC controllers
- n DC and AC motor control
- n Controlled rectifiers

**Part No. H125KPU-KT110dT**

<b>I<sub>T(AV)</sub></b>	<b>2800A</b>
<b>V<sub>DRM</sub>, V<sub>RRM</sub></b>	<b>8000V</b>
	<b>8500V</b>

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT	
				Min	Type	Max		
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Double side cooled	T <sub>c</sub> =55°C	90			2800	A
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> tp=10ms at V <sub>RRM</sub> tp=10ms		90			700	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave		90			40	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>					8000	10 <sup>3</sup> A <sup>2</sup> s
V <sub>TO</sub>	Threshold voltage			90			0.92	V
r <sub>T</sub>	On-state slope resistance						0.32	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =3000A, F=120kN		25			1.95	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>		90			2000	V/μs
di/dt	Critical rate of rise of on-state current	V <sub>DM</sub> =67%V <sub>DRM</sub> , Gate pulse t <sub>r</sub> ≤ 0.5μs I <sub>GM</sub> =1.5A		90			100	A/μs
Q <sub>rr</sub>	Recovery charge	I <sub>TM</sub> =2000A, tp=4000μs, di/dt=-5A/μs, V <sub>R</sub> =50V		90		6500		μC
I <sub>GT</sub>	Gate trigger current				40		300	mA
V <sub>GT</sub>	Gate trigger voltage	V <sub>A</sub> =12V, I <sub>A</sub> =1A		25	0.8		3.0	V
I <sub>H</sub>	Holding current				25		200	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>		90			0.3	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Double side cooled					0.004	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	Clamping force 120kN					0.001	
F <sub>m</sub>	Mounting force				110	120	140	kN
T <sub>vj</sub>	Junction temperature				-40		90	°C
T <sub>stg</sub>	Stored temperature				-40		140	°C
W <sub>t</sub>	Weight					3420		g
Outline	KT110dT							

## Outline:

