



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. H89KPU-KT78dT

I_{T(AV)}	1500A
V_{DRM}, V_{RRM}	8000V
	8500V

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min	Type	Max	
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Double side cooled	T _C =70°C	115		1500	A
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} tp=10ms at V _{RRM} tp=10ms	115			600	mA
I _{TSM}	Surge on-state current	10ms half sine wave V _R =0.6V _{RRM}	115			17	kA
I ² t	I ² t for fusing coordination					1445	10 ³ A ² s
V _{TO}	Threshold voltage		115			1.35	V
r _T	On-state slope resistance					0.53	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =1500A, F=70kN	25			2.00	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =0.67V _{DRM}	115			2000	V/μs
di/dt	Critical rate of rise of on-state current	V _{DM} =67%V _{DRM} , Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A	115			200	A/μs
Q _{rr}	Recovery charge	I _{TM} =2000A, tp=4000μs, di/dt=-5A/μs, V _R =50V	115		5000		μC
I _{GT}	Gate trigger current			40		300	mA
V _{GT}	Gate trigger voltage	V _A =12V, I _A =1A	25	0.8		3.0	V
I _H	Holding current			25		200	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =67%V _{DRM}	115			0.3	V
R _{th(j-c)}	Thermal resistance Junction to case	Double side cooled				0.009	°C /W
R _{th(c-h)}	Thermal resistance case to heatsink	Clamping force 70kN				0.002	
F _m	Mounting force			63	70	84	kN
T _{vj}	Junction temperature			-40		115	°C
T _{stg}	Stored temperature			-40		140	°C
W _t	Weight					1920	g
Outline	KT78dT						

Outline:

