Rev.2.0 Aug.28 2024

JSKT095/JSKH095

Description

1) A package of series of two chips.
2) With high thermal conductivity DBC as the insulation.
3) Welding by vacuum welding technology, which provide high reliability.

Typical Application

DC motor control, temperature control and light control system.

Absolute Maximum Ratings (Packaged into modules, unless otherwise specified, T_{CASE}=25)

Parameter	Test Conditions	Symbol	Values			Unit
			12	16	18	
Operating junction temperature range		T_J	-40~125 VRRM	1200	1600	1800
Non-repetitive peak off-state voltage	T_J=25	V_{DSM}	1300	1700	1900	V
Non-repetitive peak reverse voltage	T_J=25	V_{RSM}	1300	1700	1900	V
Average on-state current	T_C=85	$I_{T(AV)}/I_{F(AV)}$	90			A
Peak on-state surge current	t_P=10ms V_R=0.6V_{RRM}	I_{TSM}/I_{FSM}	1800			A
I^2t value for fusing	t_P=10ms V_R=0.6V_{RRM}	I^2t	16200			A^2s
Critical rate of rise of on-state current	I_G=2×I_{GT}	di/dt	150			A/μs
Insulation voltage	A.C 50Hz(1s/1min)	V_{ISO}	3600/3000			V

Electrical Characteristics (Packaged into modules, unless otherwise specified, T_{CASE}=25)

Parameter	Test Conditions	Symbol	Values	Unit
Peak on-state voltage	I_T=270A t_P=380μs	V_{TM}	≤1.8	V
Threshold voltage	T_J=125	V_{TO}	≤0.95	V
Dynamic resistance	T_J=125	R_d	≤2.1	mΩ
Repetitive peak off-state current	V_D=V_{DRM} T_C=25 T_C=125	I_{DRM1} I_{DRM2}	≤100 ≤30	μA mA

Repetitive peak reverse current	V_R=V_{RRM} T_C=25 T_C=125	I_{RRM1} I_{RRM2}	≤100 ≤30	μA mA
Triggering gate current	V_D=12V R_L=30Ω	I_{GT}	20-120	mA
Holding current	I_T=1A	I_H	≤250	mA
Latching current	I_G=1.2 I_{GT}	I_L	≤300	mA
Triggering gate voltage	V_D=12V R_L=30Ω	V_{GT}	≤1.8	V
Non triggering gate voltage	V_D=V_{DRM} T_J=125	V_{GD}	≥0.25	V
Critical rate of rise of voltage	V_D=2/3V_{DRM} T_J=125 Gate Open	dv/dt	≥1000	V/μs
Thermal resistance	Junction to case Case to heatsink	$R_{th(j-c)}$ $R_{th(c-s)}$	0.30 0.22	/W

Mechanical Characteristics

Module size	93mm×21mm
Module height	30mm
Terminal distance of (1) /(2) /(3)	20mm
Mounting torque(M5)	5±15%Nm
Terminal torque(M5)	3±15%Nm

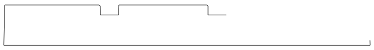

FIG.3: