

Preliminary

JSKE820

Description

- 1) A package of series of one diode chip.
- 2) Precision metal pressure contacts for high reliability.

Typical Application

AC converter, inverter and DC motor.

Absolute Maximum Ratings (Packaged into modules, unless otherwise specified, $T_{CASE}=25^{\circ}C$)

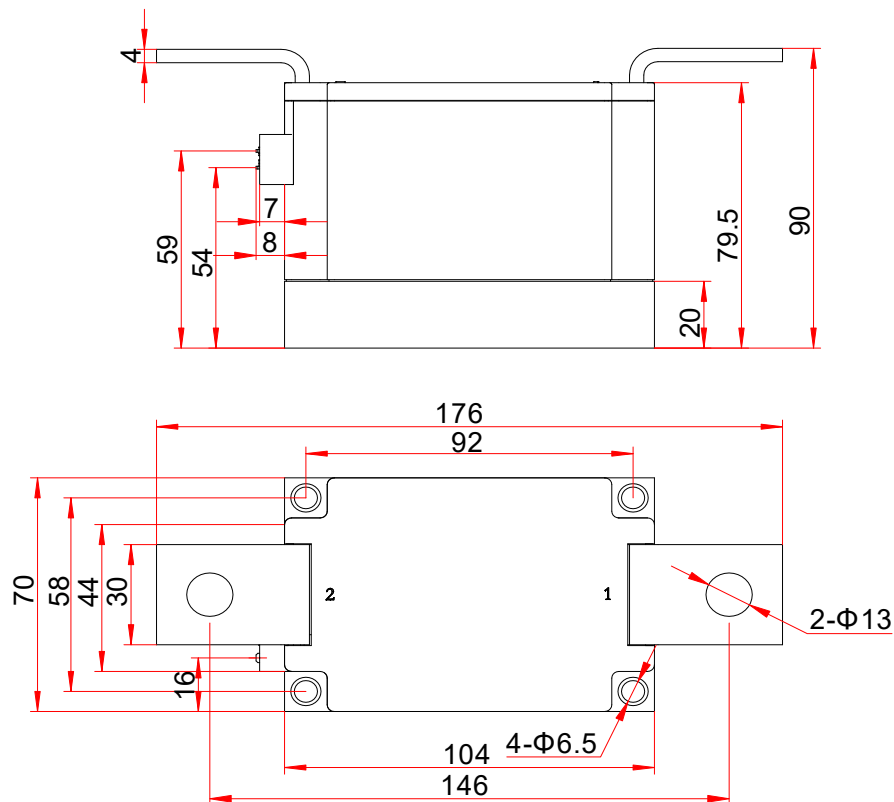
Parameter	Test Conditions	Symbol	Values			Unit
			18	20	22	
Operating junction temperature range		T_j	-40-150			$^{\circ}C$
Storage temperature range		T_{stg}	-40-125			$^{\circ}C$
Repetitive peak reverse voltage	$T_j=25^{\circ}C$	V_{RRM}	1800	2000	2200	V
Non-repetitive peak reverse voltage	$T_j=25^{\circ}C$	V_{RSM}	1900	2100	2300	V
Average forward current	$T_c=100^{\circ}C$	$I_{F(AV)}$	820			A
Peak forward surge current	$t_p=10ms, \sin 180^{\circ}$	I_{FSM}	23000			A
I^2t value for fusing	$T_j=25^{\circ}C$	I^2t	2645000			A^2s
Insulation voltage	A.C 50Hz(1min/1s)	V_{ISO}	3000/3600			V

Electrical Characteristics (Packaged into modules, unless otherwise specified, $T_{CASE}=25^{\circ}C$)

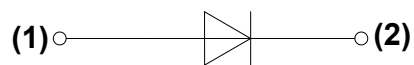
Parameter	Test Conditions	Symbol	Values	Unit
Peak forward voltage	$I_F=2400A, t_p=380\mu s$	V_{FM}	≤ 1.11	V
Threshold voltage	$T_j=150^{\circ}C$	V_{TO}	≤ 0.75	V
Dynamic resistance	$T_j=150^{\circ}C$	R_d	≤ 0.073	$m\Omega$
Repetitive peak reverse current	$V_R=V_{RRM}$			
	$T_j=25^{\circ}C$	I_{RRM1}	≤ 150	μA
	$T_j=150^{\circ}C$	I_{RRM2}	≤ 150	mA
Thermal resistance	Junction to case	$R_{th(j-c)}$	0.0466	$^{\circ}C/W$
	Case to heatsink	$R_{th(c-s)}$	0.015	

Mechanical Characteristics

Module size	176mm×70mm
Module height	90mm
Terminal distance of (1)/(2)	146mm
Mounting torque(M6)	6±15%Nm
Terminal torque(M12)	18±10%Nm



T6-P



symbol



- 1) There is no severe vibration and shock in operating environment, and there should be no impurity and atmosphere which may corrode metal and damage the insulation in the air-dielectric.
- 2) The operating condition of the product can't out of range of the above parameters.
- 3) When the product is installed on the radiator, the radiator's surface should be confirmed flat, smooth, wipe clean with alcohol, and coated evenly with a layer of thermal grease which thickness is moderate on the contact surface between product and radiator. When the module is fastened on the surface of the radiator, the M5 or M6 screws and spring washers are used and fastened with 5NM torque. After the module is operated 1 hour, all screws must be refastened.
- 4) The connection with the main electrode of module can use copper, welding, socket and so on. The contact surface should be smooth and flat, which make good contact. While the connection with the control electrode of module is installed, attention should be paid to the corresponding connection of each pin. After the completion of the connection, do not plug and pull out the lead of the control electrode freely.

Diagram illustrating the pin connections and specifications for the power MOSFET module:


- JS**: Connected to JieJie Semiconductor Co., Ltd.
- KE**: Connected to the Module of one diode chip.
- 820**: Connected to $I_{F(AV)}=820A$.
- 18**: Connected to a box containing three voltage ratings:
 - 18: $V_{RSM} \geq 1900V$
 - 20: $V_{RSM} \geq 2100V$
 - 22: $V_{RSM} \geq 2300V$

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