



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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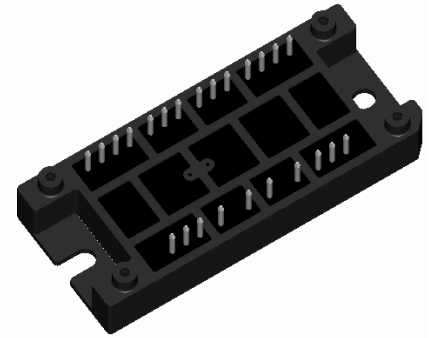
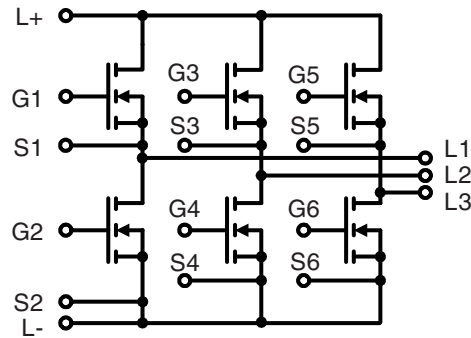
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Three phase full bridge with Trench MOSFETs

$$\begin{aligned} V_{DSS} &= 100 \text{ V} \\ R_{DSon} &= 3.6 \text{ m}\Omega \\ I_{D25} &= 210 \text{ A} \end{aligned}$$



MOSFETs

Symbol	Conditions	Maximum Ratings	
V_{DSS}	$T_{VJ} = 25^{\circ}\text{C to } 150^{\circ}\text{C}$	100	V
V_{GS}		± 20	V
I_{D25}	$T_C = 25^{\circ}\text{C}$	210	A
I_{D80}	$T_C = 80^{\circ}\text{C}$	170	A
I_{D25}	$T_C = 25^{\circ}\text{C (diode)}$	210	A
I_{D80}	$T_C = 80^{\circ}\text{C (diode)}$	170	A

Symbol	Conditions	Characteristic Values ($T_{VJ} = 25^{\circ}\text{C}$, unless otherwise specified)		
		min.	typ.	max.
R_{DSon}	$V_{GS} = 10 \text{ V}; I_D = 100 \text{ A}$		3.6	5.2 m Ω
V_{GSth}	$V_{DS} = 20 \text{ V}; I_D = 2 \text{ mA}$	2		4 V
I_{DSS}	$V_{DS} = 100 \text{ V}; V_{GS} = 0 \text{ V}; T_{VJ} = 25^{\circ}\text{C}$ $T_{VJ} = 125^{\circ}\text{C}$		0.25	0.02 mA mA
I_{GSS}	$V_{GS} = \pm 20 \text{ V}; V_{DS} = 0 \text{ V}$			0.2 μA
Q_g Q_{gs} Q_{gd}	$V_{GS} = 10 \text{ V}; V_{DS} = 80 \text{ V}; I_D = 200 \text{ A}$		430 90 180	nC nC nC
$t_{d(on)}$ t_r $t_{d(off)}$ t_f	$V_{GS} = 10 \text{ V}; V_{DS} = 50 \text{ V};$ $I_D = 50 \text{ A}; R_G = 2.7 \Omega$		40 100 260 100	ns ns ns ns
V_F	(diode) $I_F = 100 \text{ A}; V_{GS} = 0 \text{ V}$		1.0	1.5 V
t_{rr}	(diode) $I_F = 40 \text{ A}; -di/dt = 200 \text{ A}/\mu\text{s}; V_{DS} = 30 \text{ V}$		100	ns
R_{thJC} R_{thJH}	with heat transfer paste		0.51	0.26 K/W K/W

Applications

AC drives

- in automobiles and trucks
 - electric power steering
 - starter generator
 - etc...
- in industrial vehicles
 - propulsion drives
 - fork lift drives
- in battery supplied equipment

Features

- MOSFETs in trench technology:
 - low R_{DSon}
 - optimized intrinsic reverse diode
- package:
 - high level of integration
 - solder terminals for PCB mounting
 - isolated DCB ceramic base plate with optimized heat transfer

IXYS reserves the right to change limits, test conditions and dimensions.

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2 - 2