



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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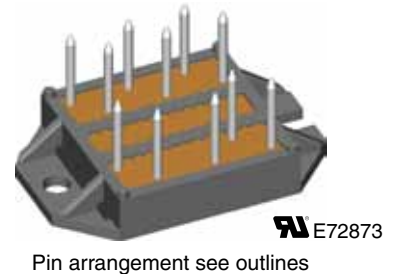
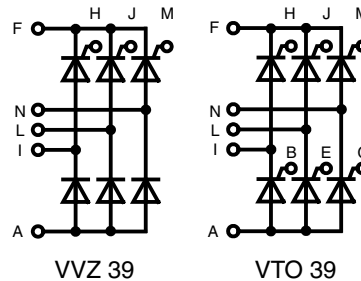
Three Phase Rectifier Bridge

$$I_{dAV} = 39 \text{ A}$$

$$V_{RRM} = 800/1200 \text{ V}$$

Preliminary data

V_{RSM}	V_{RRM}	Type
V_{DSM}	V_{DRM}	
V	V	
900	800	VTO 39-08ho7 VVZ 39-08ho7
1300	1200	VTO 39-12ho7 VVZ 39-12ho7



Symbol	Conditions	Maximum Ratings	
I_{dAV} ①	$T_C = 85^\circ\text{C}$; module	39	A
I_{TAVM}	$T_C = 85^\circ\text{C}$ (180° sine; per thyristor)	16	A
I_{TSM}	$T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$ (50 Hz)	200	A
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	210	A
	$T_{VJ} = T_{VJM}$ $t = 10 \text{ ms}$ (50 Hz)	180	A
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	190	A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$ (50 Hz)	200	A ² s
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	150	A ² s
	$T_{VJ} = T_{VJM}$ $t = 10 \text{ ms}$ (50 Hz)	160	A ² s
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz)	150	A ² s
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$ $f = 50 \text{ Hz}$; $t_p = 200 \mu\text{s}$ $V_D = \frac{2}{3} V_{DRM}$ $I_G = 0.15 \text{ A}$ $di_G/dt = 0.15 \text{ A}/\mu\text{s}$	repetitive; $I_T = 20 \text{ A}$ non repetitive; $I_T = I_{TAVM}$	100 500 A/ μs A/ μs
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}$; $V_D = \frac{2}{3} V_{DRM}$ $R_{GK} = \infty$, method 1 (linear voltage rise)		500 V/ μs
V_{RGM}		10	V
P_{GM}	$T_{VJ} = T_{VJM}$ $t_p = 30 \mu\text{s}$	≤ 5	W
	$I_T = I_{TAVM}$ $t_p = 300 \mu\text{s}$	≤ 2.5	W
P_{GAVM}		0.5	W
T_{VJ}		-40...+125	°C
T_{VJM}		125	°C
T_{stg}		-40...+125	°C
V_{ISOL}	50/60 Hz, RMS $t = 1 \text{ min}$	2500	V~
	$I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	3000	V~
M_d	Mounting torque (M4)	1.5 - 2	Nm
		14 - 18	lb.in.
Weight	Typ.	18	g

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

① for resistive load at bridge output.

Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering

Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with two screw
- Space and weight savings
- Improved temperature & power cycling capability
- Small and light weight

Symbol	Conditions	Characteristic Values		
$I_D; I_R$	$V_R = V_{RRM}; V_D = V_{DRM}$	$T_{VJ} = T_{VJM}$	\leq	5 mA
V_T	$I_T = 20$ A	$T_{VJ} = 25^\circ\text{C}$	\leq	1.6 V
V_{T0}	For power-loss calculations only	$T_{VJ} = 125^\circ\text{C}$		0.85 V
r_T				27 m Ω
V_{GT}	$V_D = 6$ V	$T_{VJ} = 25^\circ\text{C}$	\leq	1.5 V
		$T_{VJ} = -40^\circ\text{C}$	\leq	2.5 V
I_{GT}	$V_D = 6$ V	$T_{VJ} = 25^\circ\text{C}$	\leq	25 mA
		$T_{VJ} = -40^\circ\text{C}$	\leq	50 mA
V_{GD}	$V_D = \frac{2}{3}V_{DRM}$	$T_{VJ} = T_{VJM}$	\leq	0.2 V
I_{GD}			\leq	3 mA
I_L	$t_p = 10$ μs $I_G = 0.1$ A; $di_G/dt = 0.1$ A/ μs	$T_{VJ} = 25^\circ\text{C}$	\leq	75 mA
I_H	$V_D = 6$ V; $R_{GK} = \infty$	$T_{VJ} = 25^\circ\text{C}$	\leq	50 mA
t_{gd}	$V_D = \frac{1}{2}V_{DRM}$ $I_G = 0.1$ A; $di_G/dt = 0.1$ A/ μs	$T_{VJ} = 25^\circ\text{C}$	\leq	2 μs
R_{thJC}	per thyristor / diode; DC per module			1.3 K/W 0.22 K/W
R_{thJH}	per thyristor / diode; DC per module			1.8 K/W 0.3 K/W
d_s	Creeping distance on surface			11.2 mm
d_A	Creepage distance in air			5 mm
a	Max. allowable acceleration			50 m/s ²

Dimensions in mm (1 mm = 0.0394“)
