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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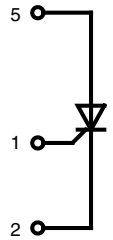
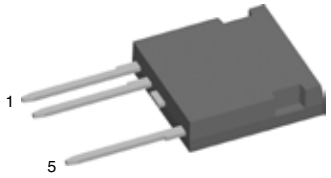
High Voltage Phase Control Thyristor
in High Voltage ISOPLUS i4-PAC™

$V_{DRM} = V_{RRM}$ = 2200 V
$I_{T(AV)}$ = 18 A
I_{TSM} = 200 A

V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Type
2300	2200	CS 20-22moF1





Thyristor

Symbol	Conditions		Maximum Ratings	
$V_{DRM / RRM}$			2200	V
$I_{T(AV)}$	sine 180°; T_C = 90°C		18	A
$I_{T(AV)}$	square; d = 1/3; T_C = 90°C		16	A
I_{TSM}	sine 180°; t = 10 ms; V_R = 0 V; T_{VJ} = 25°C		200	A
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$ f = 50 Hz; t_p = 200 µs	repetitive, I_T = 40 A	100	A/µs
	V_D = 2/3 V_{DRM} I_G = 0.45 A di_G/dt = 0.45 A/µs	non repetitive, I_T = 20 A	250	A/µs
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}$; V_D = 2/3 V_{DRM} R_{GK} = ∞; method 1 (linear voltage rise)		2500	V/µs

Symbol	Conditions		Characteristic Values (T_{VJ} = 25°C, unless otherwise specified) typ.	max.	
V_T	I_T = 20 A;	T_{VJ} = 25°C T_{VJ} = 125°C	1.3 1.3	1.5	V
V_{GT} I_{GT}	V_D = 6 V			2.3 250	V mA
V_{GD} I_{GD}	V_D = 2/3 V_{DRM};	$T_{VJ} = T_{VJM}$		0.2 5	V mA
I_L	t_p = 10 µs; V_D = 6 V I_G = 0.45 A; di_G/dt = 0.45 A/µs			500	mA
I_H	V_D = 6 V; R_{GK} = ∞			150	mA
t_{gd}	V_D = ½ V_{DRM} I_G = 0.45 A; di_G/dt = 0.45 A/µs			2	µs
I_R, I_D	$V_R = V_{RRM}$; $V_D = V_{DRM}$;	T_{VJ} = 25°C T_{VJ} = 125°C	 2	50	µA mA
R_{thJC}	DC current			0.92	K/W

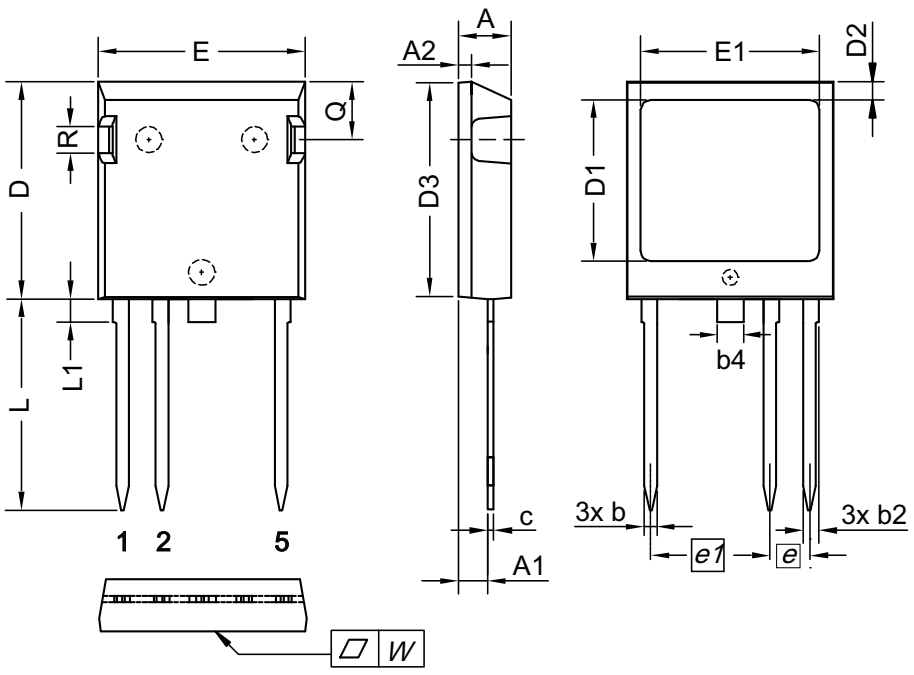
Features
- high voltage thyristor
  - for line frequency
  - chip technology for long term stability
- ISOPLUS i4-PAC™ high voltage package
  - isolated back surface
  - enlarged creepage towards heatsink
  - enlarged creepage between high voltage pins
  - application friendly pinout
  - high reliability
  - industry standard outline

Applications
- controlled rectifiers
  - power supplies
  - drives
- AC switches
- capacitor discharge control
  - flash tubes
  - X-ray and laser generators

Component			
Symbol	**Conditions**	**Maximum Ratings**	
T_{VJ}		-40 ... +125	°C
T_{stg}		-55 ... +125	°C
V_{ISOL}	$I_{ISOL} \leq 1$ mA; 50/60 Hz	2500	V~
F_C	mounting force with clip	20...120	N

Symbol	**Conditions**	**Characteristic Values**		
		min.	typ.	
d_S, d_A	A pin - K pin	7		mm
	pin - backside metal	5.5		mm
R_{thCH}	with heatsink compound		0.15	K/W
Weight			5.5	g

Dimensions in mm (1 mm = 0.0394")



Dim.	Millimeter		Inches	
	min	max	min	max
A	4.83	5.21	0.190	0.205
A1	2.59	3.00	0.102	0.118
A2	1.17	2.16	0.046	0.085
b	1.14	1.40	0.045	0.055
b2	1.47	1.73	0.058	0.068
b4	2.54	2.79	0.100	0.110
c	0.51	0.74	0.020	0.029
D	20.80	21.34	0.819	0.840
D1	14.99	15.75	0.590	0.620
D2	1.65	2.03	0.065	0.080
D3	20.30	20.70	0.799	0.815
E	19.56	20.29	0.770	0.799
E1	16.76	17.53	0.660	0.690
e	3.81 BSC		0.150 BSC	
e1	11.43 BSC		0.450 BSC	
L	19.81	21.34	0.780	0.840
L1	2.11	2.59	0.083	0.102
Q	5.33	6.20	0.210	0.244
R	2.54	4.57	0.100	0.180
W	-	0.10	-	0.004

Die konvexe Form des Substrates ist typ. < 0.05 mm über der Kunststoffoberfläche der Bauteilunterseite
The convex bow of substrate is typ. < 0.05 mm over plastic surface level of device bottom side