



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Gallium Arsenide Schottky Rectifier

Second generation

ISOPLUS220™

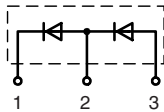
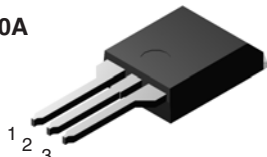
Electrically Isolated Back Surface

Preliminary Data

$$V_{RRM} = 600 \text{ V (2x300V)}$$

$$I_{DC} = 38 \text{ A}$$

$$C_{Junction} = 16 \text{ pF}$$

Type	Marking on product	Circuit	Package
DGSS 20-06CC	DGSS 20-06CC		ISOPLUS220A 

Diode				
Symbol	Conditions	Maximum Ratings		
$V_{RRM/RSM}$	(between terminal 1 and 3)	600		V
$V_{RRM/RSM}$		300		V
I_{FAV}	$T_C = 25^\circ\text{C}$; DC	38		A
I_{FAV}	$T_C = 90^\circ\text{C}$; DC	23		A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t_p = 10 \text{ ms}$ (50 Hz), sine	110		A
P_{tot}	$T_C = 25^\circ\text{C}$	45		W
		Characteristic Values		
Symbol	Conditions	min.	typ.	max.
V_F	$I_F = 20 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$		1.7	2.1 V
	$I_F = 20 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$		1.2	V
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$			0.4 mA
	$V_R = V_{RRM}$; $T_{VJ} = 125^\circ\text{C}$		40	μA
I_{RM}	$I_F = 5 \text{ A}$; $-di_F/dt = 150 \text{ A}/\mu\text{s}$; $V_R = 150 \text{ V}$; $T_{VJ} = 125^\circ\text{C}$		2.1	A
t_{rr}			20	ns
C_J	$V_R = 150 \text{ V}$; $T_{VJ} = 125^\circ\text{C}$		16	pF
R_{thJC}				3.5 K/W

Data according to IEC 60747 and per diode unless otherwise specified

Features

GaAs Schottky Diode with Enhanced Barrier Height:

- lowest operating forward voltage drop due to additional injection of minority carriers
- high switching speed
 - low junction capacity of GaAs diode independent from temperature
 - short and low reverse recovery current peak due to short lifetime of minority carriers
 - soft turn off
- low leakage current

ISOPLUS220™ Package:

- isolated back surface
- low coupling capacity between pins and heatsink
- enlarged creepage
- high reliability
- industry standard outline

Applications

Power Factory Correction (PFC)

Switched Mode Power Supplies:

- AC-DC converters
- DC-DC converters

with:

- high switching frequency
- high efficiency
- low EMI

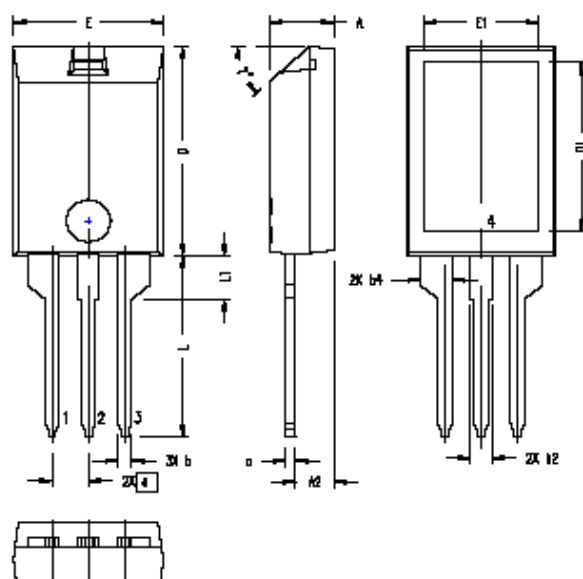
for use e. g. in:

- telecom
- computer
- automotive equipment

Component			
Symbol	Conditions	Maximum Ratings	
I_{RMS}	per pin	45	A
T_{VJ}		-55...+175	°C
T_{stg}		-55...+150	°C
V_{ISOL}	$I_{ISOL} \leq 1 \text{ mA}; 50/60 \text{ Hz}$	2500	V~
F_c	mounting force with clip	10...50	N

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
C_p	coupling capacity between shorted pins and mounting tab in the case		15	pF
R_{thcs}			0.3	K/W
Weight			2	g

ISOPLUS220 OUTLINE



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.157	.197	4.00	5.00
A2	.098	.118	2.50	3.00
b	.035	.051	0.90	1.30
b2	.049	.065	1.25	1.65
b4	.093	.100	2.35	2.55
c	.028	.039	0.70	1.00
D	.591	.630	15.00	16.00
D1	.472	.512	12.00	13.00
E	.394	.433	10.00	11.00
E1	.295	.335	7.50	8.50
e	.100 BASIC		2.55 BASIC	
L	.512	.571	13.00	14.50
L1	.118	.138	3.00	3.50
T*			42.5°	47.5°

NOTE:

1. Bottom heatsink (Pin 4) is electrically isolated from Pin 1, 2, or 3.
2. This drawing will meet dimensional requirement of JEDEC SS Product Outline TO-273 except D and D1 dimension.