

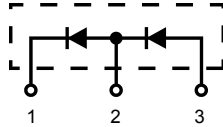
Gallium Arsenide Schottky Diode

ISOPLUS220™

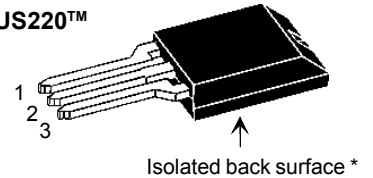
Electrically Isolated Back Surface

$$\begin{aligned} I_{DC} &= 13 \text{ A} \\ V_{RRM} &= 500 \text{ V} \\ C_{JUNCTION} &= 26 \text{ pF} \end{aligned}$$

$V_{RRM}^{①}$ V	V_{RRM} V	Type
500	250	DGSS 20-025C



ISOPLUS220™



Symbol	Conditions	Maximum Ratings	
I_{DC}	$T_C = 25^\circ\text{C}$	13	A
I_{FAV}	$T_C = 90^\circ\text{C}$; 50% Duty cycle; Square wave	8.5	A
I_{FSM}	$T_{VJ} = 25^\circ\text{C}$; $t_p = 10 \text{ ms}$, sine	50	A
T_{VJ}		-55...+175	$^\circ\text{C}$
T_{stg}		-55...+150	$^\circ\text{C}$
P_{tot}	$T_C = 25^\circ\text{C}$	40	W
V_{ISOL}	50/60 Hz RMS; $I_{ISOL} \leq 1 \text{ mA}$	2500	V~
F_c	Mounting force	11...65 / 2.4...11	N / lb
Weight	typical	2	g

* Patent pending

Features

- Silicon chip on Direct-Copper-Bond substrate
- High power dissipation
- Isolated mounting surface
- 2500V electrical isolation
- Low forward voltage
- Very high switching speeds
- Soft reverse recovery
- Temperature independent switching behaviour
- High temperature operation capability
- Low cathode to tab capacitance (<15pF)
- Epoxy meets UL 94V-0

Applications

- Switched mode power supplies (SMPS)
- High frequency converters
- Resonant converters

See DGS20-025A data sheet for characteristic curves

Symbol	Conditions	Characteristic Values	
		typ.	max.
$I_R^{①}$	$T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$ $V_R = V_{RRM}$	10	2 mA
$V_F^{②}$	$I_F = 7.5 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$ $I_F = 7.5 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	1.2 1.3	1.5 V
C_J	$V_R = 100 \text{ V}$; $T_{VJ} = 125^\circ\text{C}$	26	pF
R_{thJC}			3.7 K/W
R_{thCH}		0.6	K/W

Notes: Data given for $T_{VJ} = 25^\circ\text{C}$ and per diode unless otherwise specified

① Diodes connected in series

② Pulse test: pulse Width = 5 ms, Duty Cycle < 2.0 %

③ Pulse test: pulse Width = 300 μs , Duty Cycle < 2.0 %

ISOPLUS220 OUTLINE
