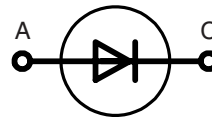


Gallium Arsenide Schottky Rectifier

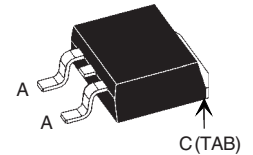
$$\begin{aligned} I_{DC} &= 13 \text{ A} \\ V_{RRM} &= 250 \text{ V} \\ t_{rr} &= 14 \text{ ns} \end{aligned}$$

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
250	250	DGS 20-025AS



TO-263 AB



A = Anode, C = Cathode, TAB = Cathode

Symbol	Conditions	Maximum Ratings
I_{DC}	$T_C = 90^\circ\text{C}$;	13 A
I_{FRM}	$T_C = 25^\circ\text{C}$; (at rated V_R , Square Wave, 20 kHz)	30 A
I_{FSM}	$t_p = 8.3 \text{ ms}$; sine	30 A
T_{VJ}		-55...+175 $^\circ\text{C}$
T_{VJM}		175 $^\circ\text{C}$
T_{stg}		-55...+150 $^\circ\text{C}$
P_{tot}	$T_C = 25^\circ\text{C}$	48 W

Features

- Low forward voltage
- Very high switching speed – low I_{RM} , t_{rr} values
- Soft reverse recovery
- Temperature independent switching behaviour
- High temperature operation capability

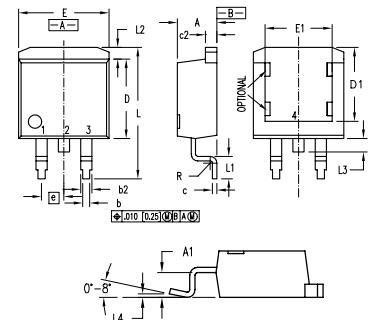
Applications

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

Symbol	Conditions	Characteristic Values
		typ. max.
V_F	$I_F = 7.5 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	1.2 V
	$I_F = 7.5 \text{ A}$ $T_{VJ} = 125^\circ\text{C}$	1.3 V
	$I_F = 15 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	1.9 V
I_R	$V_R = \frac{1}{2} V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	20 μA
	$V_R = \frac{1}{2} V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$	100 μA
	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	2 mA
I_{RM}	$V_R = 100 \text{ V}$; $T_{VJ} = 25^\circ\text{C}...150^\circ\text{C}$	1.8 A
t_{rr}	$I_F = 7.5 \text{ A}$; $di/dt = -200 \text{ A}/\mu\text{s}$	14 ns
R_{thJC}		3.1 K/W
Weight		2 g

Data according to DIN/IEC 747 and per diode unless otherwise specified

Outline TO-263 AB



Dim.	Millimeter	Inches
	Min. Max.	Min. Max.
A	4.06 4.83	.160 .190
A1	2.03 2.79	.080 .110
b	0.51 0.99	.020 .039
b2	1.14 1.40	.045 .055
c	0.46 0.74	.018 .029
c2	1.14 1.40	.045 .055
D	8.64 9.65	.340 .380
D1	8.00 8.89	.315 .350
E	9.65 10.29	.380 .405
E1	6.22 8.13	.245 .320
e	2.54 BSC	.100 BSC
L	14.61 15.88	.575 .625
L1	2.29 2.79	.090 .110
L2	1.02 1.40	.040 .055
L3	1.27 1.78	.050 .070
L4	0 0.20	0 .008
R	0.46 0.74	.018 .029