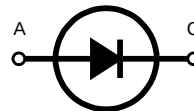


Gallium Arsenide Schottky Rectifier

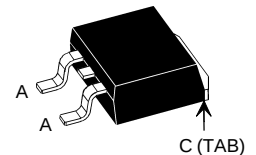
$$\begin{aligned} I_{DC} &= 13 \text{ A} \\ V_{RRM} &= 220/250 \text{ V} \\ t_{rr} &= 14 \text{ ns} \end{aligned}$$

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
220	220	DGS 20-022AS
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 , Sqare 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

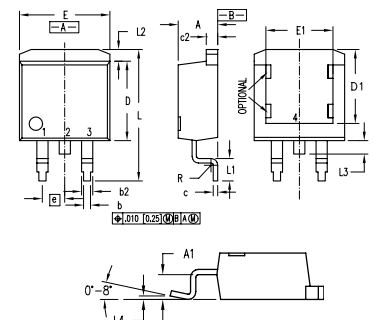
Applications

- 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	1.5	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