

Gallium Arsenide Schottky Rectifier

$$I_{DC} = 11 \text{ A}$$

$$V_{RRM} = 150/180 \text{ V}$$

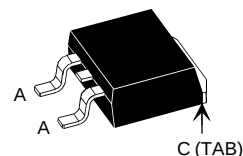
$$t_{rr} = 13 \text{ ns}$$

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
150	150	DGS 10-015AS
180	180	DGS 10-018AS



TO-263 AB



A = Anode, C = Cathode, TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{DC}	$T_C = 90^\circ\text{C};$	11	A
I_{FRM}	$T_C = 25^\circ\text{C};$ (at rated V_R , Sqare Wave, 20 kHz)	20	A
I_{FSM}	$t_p = 8.3 \text{ ms};$ sine	20	A
T_{VJ}		-55...+175	$^\circ\text{C}$
T_{VJM}		175	$^\circ\text{C}$
T_{stg}		-55...+150	$^\circ\text{C}$
P_{tot}	$T_C = 25^\circ\text{C}$	34	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

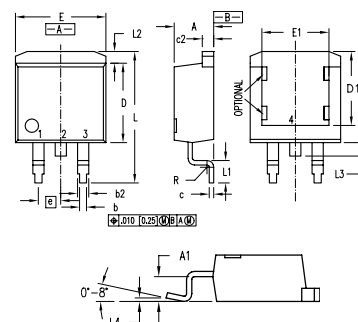
Applications

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

Symbol	Conditions	Characteristic Values	
		typ.	max.
V_F	$I_F = 5 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	0.8	1.1
	$I_F = 5 \text{ A}$ $T_{VJ} = 125^\circ\text{C}$	0.8	V
	$I_F = 10 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	1.2	V
I_R	$V_R = \frac{1}{2} V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	15	μA
	$V_R = \frac{1}{2} V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$	70	μA
	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$		1.3 mA
I_{RM} t_{rr}	$V_R = 100 \text{ V};$ $T_{VJ} = 25^\circ\text{C}...150^\circ\text{C}$ $I_F = 5 \text{ A};$ di/dt = -150 A/ μs	1.2	A
		13	ns
R_{thJC}			4.4 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

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