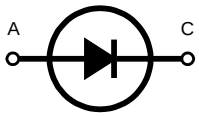
Gallium Arsenide Schottky Rectifier

I_{DC} = 17 A
V_{RRM} = 150/180 V
t_{rr} = 14 ns

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
150	150	DGS 20-015AS
180	180	DGS 20-018AS



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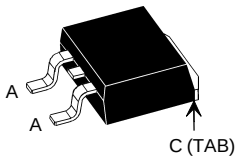


A = Anode, C = Cathode , TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{DC}	T_C = 90°C;	17	A
I_{FRM}	T_C = 25°C; (at rated V_R, Sqare Wave, 20 kHz)	30	A
I_{FSM}	t_p = 8.3 ms; sine	30	A
T_{VJ}		-55...+175	°C
T_{VJM}		175	°C
T_{stg}		-55...+150	°C
P_{tot}	T_C = 25°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

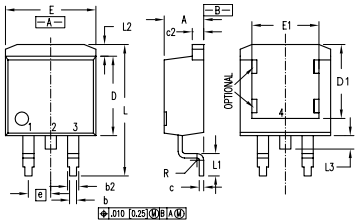
Applications

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

Symbol	Conditions		Characteristic Values typ.	max.	
V_F	I_F = 7.5 A	T_{VJ} = 25°C	0.8	1.0	V
	I_F = 7.5 A	T_{VJ} = 125°C	0.8		V
	I_F = 15 A	T_{VJ} = 25°C	1.2		V
I_R	V_R = ½ V_{RRM}	T_{VJ} = 25°C	20		µA
	V_R = ½ V_{RRM}	T_{VJ} = 125°C	100		µA
	V_R = V_{RRM}	T_{VJ} = 25°C		2	mA
I_{RM}	V_R = 100 V;	T_{VJ} = 25°C...150°C	1.8		A
t_{rr}	I_F = 7.5 A; di/dt = -200 A/µs		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 Min.	Max.	Inches 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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