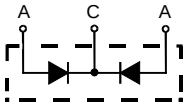
Gallium Arsenide Schottky Rectifier

I_{DC} = 11 A
V_{RRM} = 150 / 180 V
t_{rr} = 13 ns

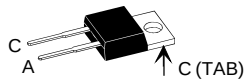
Preliminary Data

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

V_{RSM} V	V_{RRM} V	Type	
150	150	DGSK 20-015A	Common cathode
180	180	DGSK 20-018A	

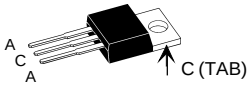


TO-220 AC



A = Anode, C = Cathode , TAB = Cathode

TO-220 AB



Symbol	Conditions	Maximum Ratings	
I_{DC}	T_C = 90°C;	11	A
I_{FRM}	T_C = 25°C; (at rated V_R, Sqare Wave, 20 kHz)	20	A
I_{FSM}	t_p = 8.3 ms; sine	20	A
T_{VJ}		-55...+175	°C
T_{VJM}		175	°C
T_{stg}		-55...+150	°C
P_{tot}	T_C = 25°C	34	W
M_d	Mounting torque with screw M3	0.45/4	Nm/lb.in.
	Mounting torque with screw M3.5	0.55/5	Nm/lb.in.

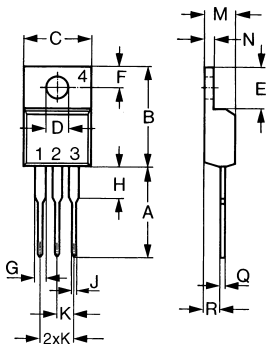
Features
- Low forward voltage
- Very high switching speed – low I_{RM}, t_{rr} values
- Soft reverse recovery
- Temperature independent switching behaviour
- High temperature operation capability

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

Symbol	Conditions		Characteristic Values typ.	max.	
V_F	I_F = 5 A	T_{VJ} = 25°C	0.8	1.1	V
	I_F = 5 A	T_{VJ} = 125°C	0.8		V
	I_F = 10 A	T_{VJ} = 25°C	1.2		V
I_R	V_R = ½ V_{RRM}	T_{VJ} = 25°C	15		µA
	V_R = ½ V_{RRM}	T_{VJ} = 125°C	70		µA
	V_R = V_{RRM}	T_{VJ} = 25°C		1.3	mA
I_{RM}	V_R = 100 V;	T_{VJ} = 25°C...150°C	1.2		A
t_{rr}	I_F = 5 A; di/dt = -150 A/µs		13		ns
R_{thJC}				4.4	K/W
Weight			2		g

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

Outline (center pin only for DGSK types)



Dim.	Millimeter Min.	Max.	Inches Min.	Max.
A	12.70	13.97	0.500	0.550
B	14.73	16.00	0.580	0.630
C	9.91	10.66	0.390	0.420
D	3.54	4.08	0.139	0.161
E	5.85	6.85	0.230	0.270
F	2.54	3.18	0.100	0.125
G	1.15	1.65	0.045	0.065
H	2.79	5.84	0.110	0.230
J	0.64	1.01	0.025	0.040
K	2.54	BSC	0.100	BSC
M	4.32	4.82	0.170	0.190
N	1.14	1.39	0.045	0.055
Q	0.38	0.56	0.015	0.022
R	2.29	2.79	0.090	0.110

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