GSM1362DF

Preliminary Specification

100V N-Channel MOSFET

Absolute Maximum Ratings (T_J=25ºC Unless otherwise specified)

Symbol	Parameter		Value	Unit
V_{DSS}	Drain-Source Voltage		100	V
V_{GSS}	Gate-Source Voltage		±20	V
I_D	Continuous Drain Current (Silicon Limited)	T_C=25ºC	104	A
		T_C=100ºC	65	
	Continuous Drain Current (Package Limited)		80	
I_{DM}	Pulsed Drain Current [1]		320	A
I_{AS}	Single Pulse Avalanche Current, L = 0.1mH [2]		25	A
E_{AS}	Single Pulse Avalanche Energy, L = 0.1mH [2]		62.5	mJ
P_D	Power Dissipation	T_C=25ºC	125	W
		T_C=100ºC	50	
$R_{\theta JC}$	Thermal Resistance-Junction to Case		1	ºC/W
$R_{\theta JA}$	Thermal Resistance-Junction to Ambient [2]		62	ºC/W
T_J	Operating Junction Temperature Range		-55 to +150	ºC
T_{STG}	Storage Temperature Range		-55 to +150	ºC

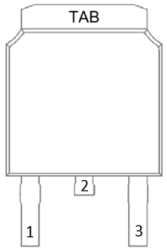
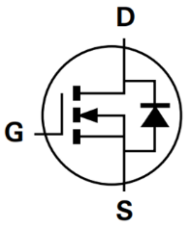
NOTE:

1. Single pulse width is limited by max junction temperature.
2. The data tested by surface mounted on a 1 inch2 FR-4 board with 2OZ copper.

Electrical Characteristics (T_J=25℃ Unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static						
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0V, I_D=250uA	100			V
I_{DSS}	Drain-Source Leakage Current	V_{DS}=100V, V_{GS}=0V			1	uA
I_{GSS}	Gate-Source Leakage Current	V_{DS}=0V, V_{GS}=±20V			±100	nA
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}, I_D=250uA	1.2		2.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS} =10V, I_D=15A			6.4	mΩ
		V_{GS} =4.5V, I_D=10A			9	
V_{SD}	Diode Forward Voltage	V_{GS}=0V, I_S=1A			1	V
gfs	Forward Transconductance	V_{DS}=5V, I_D=20A	-	30	-	S

Packages & Pin Assignments

TO-252-2L	Equivalent Circuit
	

Pin	Symbol	Description	Pin	Symbol	Description
1	G	Gate	2	D	Drain
3	S	Source	TAB	D	Drain

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