

GSM6320TF

Preliminary Specification

60V N-Channel MOSFET

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter		Value	Unit
V _{DS}	Drain-Source Voltage		60	V
V _{GS}	Gate-Source Voltage		±20	V
I _D	Continuous Drain Current (Silicon Limited)	T _C =25°C	194	A
		T _C =100°C	122	
	Continuous Drain Current (Package Limited)		120	
I _{DM}	Pulsed Drain Current ¹		400	A
P _D	Power Dissipation	T _C =25°C	208	W
		T _C =100°C	83	
R _{θJC}	Thermal Resistance-Junction to Case		0.6	°C/W
R _{θJA}	Thermal Resistance-Junction to Ambient		62	°C/W
T _J	Operating Junction Temperature Range		-55 to +150	°C
T _{STG}	Storage Temperature Range		-55 to +150	°C

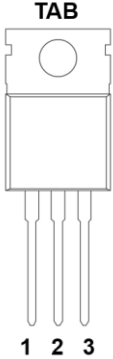
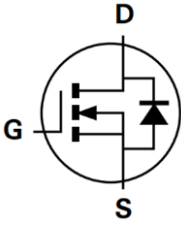
NOTE :

1. Pulse width limited by maximum junction temperature.

Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250uA	60			V
I _{DSS}	Drain-Source Leakage Current	V _{DS} =60V, 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 =20A			2.3	mΩ
		V _{GS} =4.5V, I _D =10A			3.5	
V _{SD}	Diode Forward Voltage	V _{GS} =0V, I _S =1A			1.0	V

Packages & Pin Assignments

TO-220-3L			Equivalent Circuit		
					
Pin	Symbol	Description	Pin	Symbol	Description
1	G	Gate	2	D	Drain
3	S	Source	TAB	D	Drain

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