

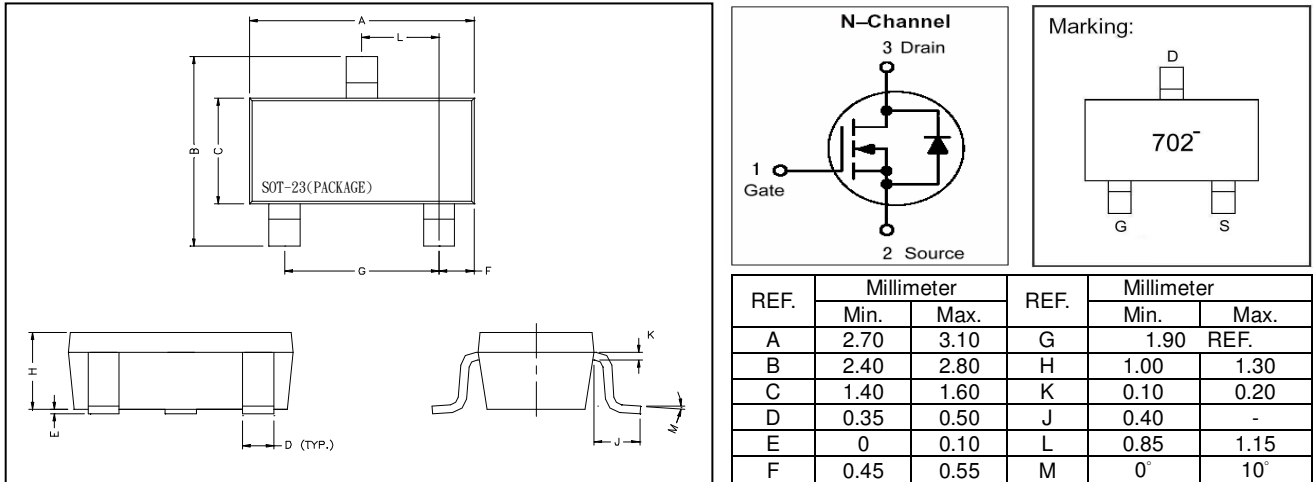
G2N7002

N-CHANNEL TRANSISTOR

Description

N-channel enhancement-mode MOS TRANSISTOR

Package Dimensions



Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Operating Junction and Storage Temperature Range	Tj, Tstg	-55 ~ +150	°C
Drain-Source Voltage		60	V
Gate-Source Voltage	VGS	±20	V
- Continuous			
- Non-repetitive (tp ≤ 50us)	VGSM	±40	V
Continuous Drain Current	ID	Ta=25°C ⁽¹⁾	115
		Ta=100°C ⁽¹⁾	73
Pulsed Drain Current (Ta=25°C) ⁽²⁾	IDM	800	mA
Power Dissipation	PD	Ta=25°C	0.2
		Ta=100°C	0.08
Thermal Resistance, Junction-to-Ambient	RthJA	625	°C/W

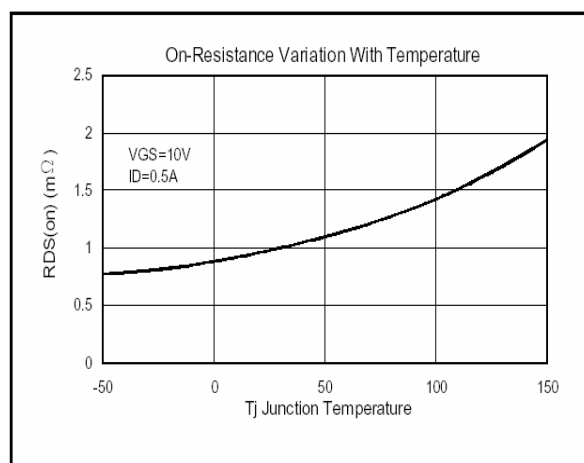
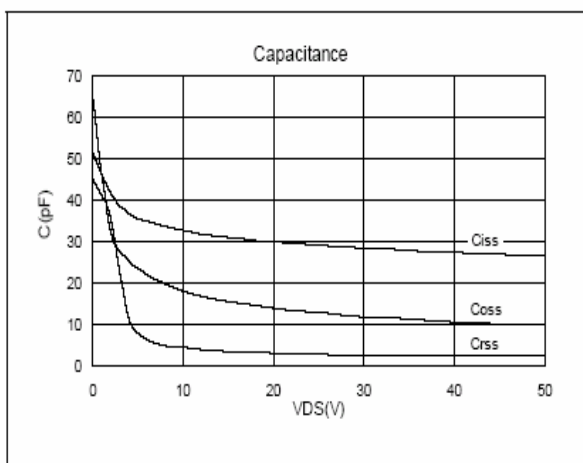
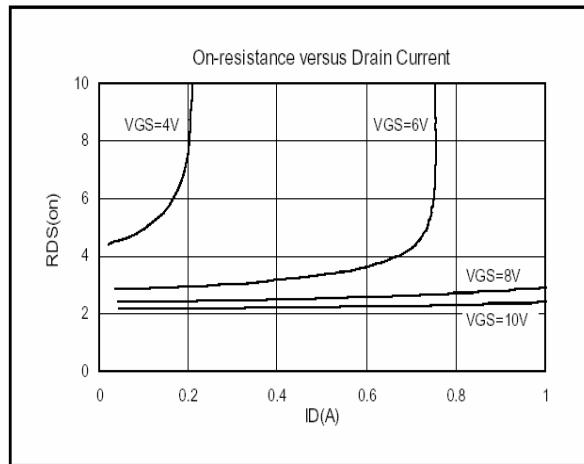
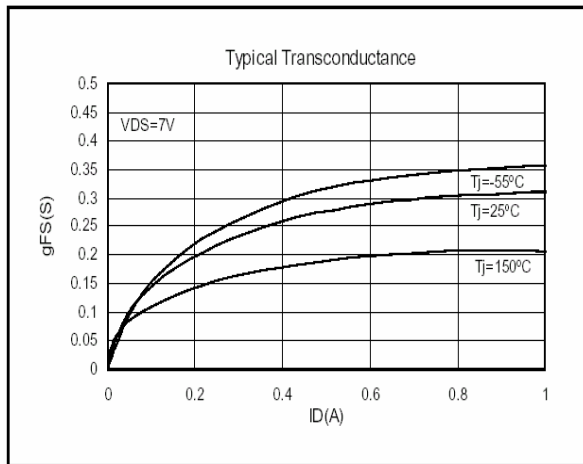
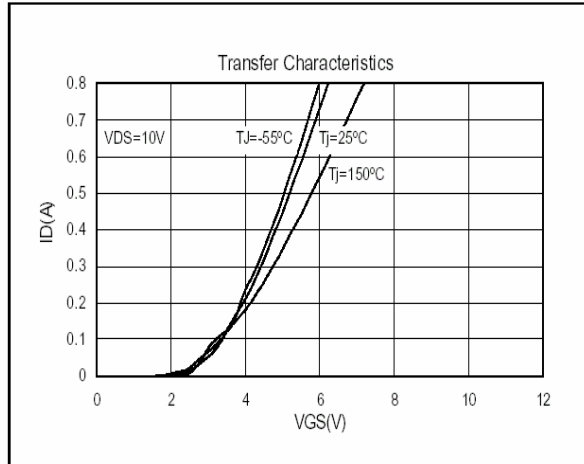
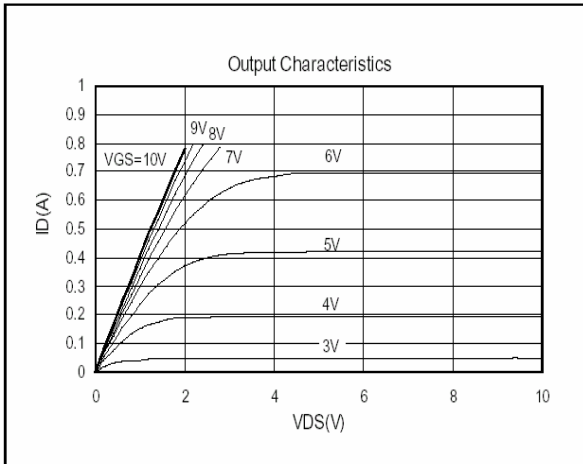
Characteristics at Ta = 25°C

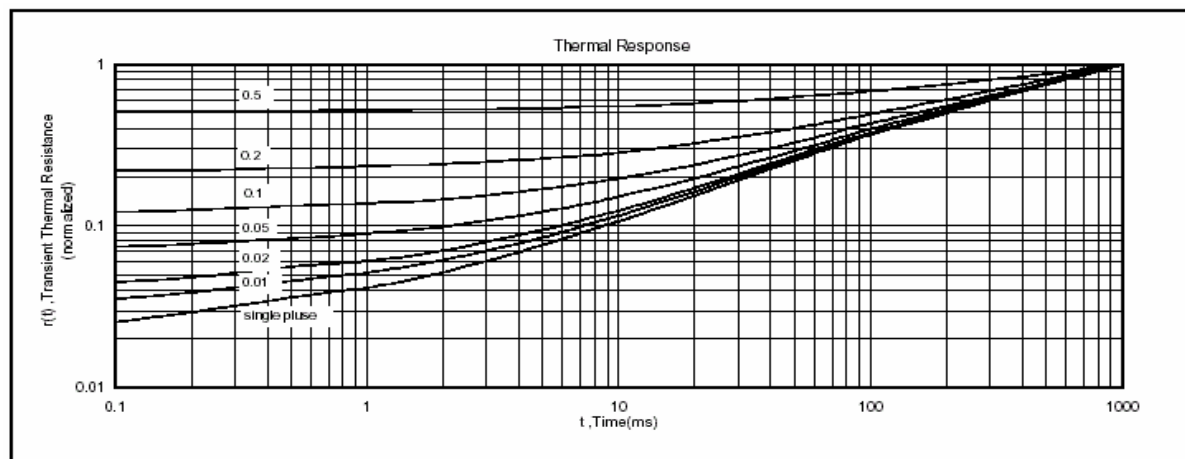
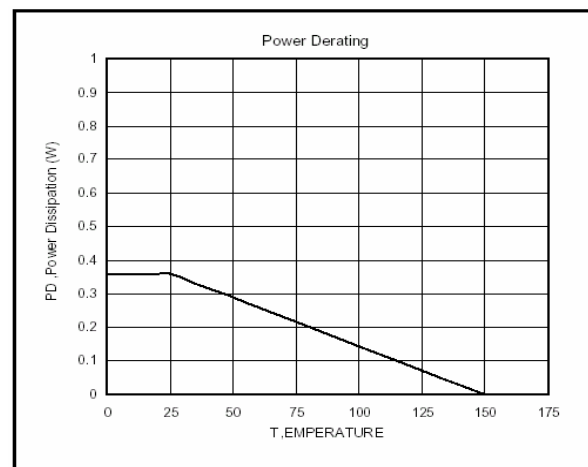
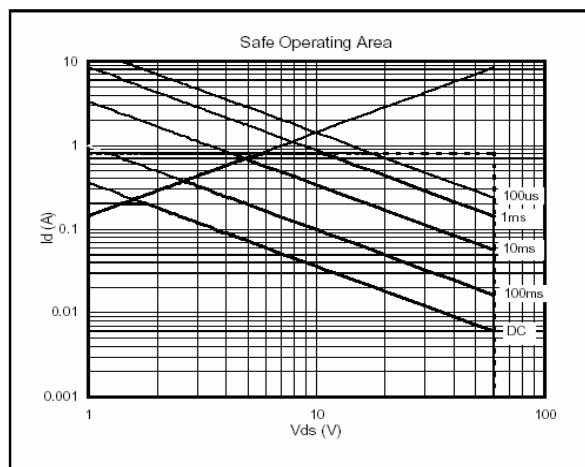
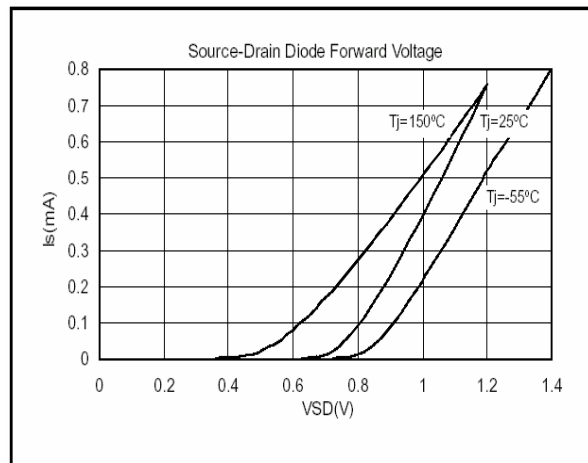
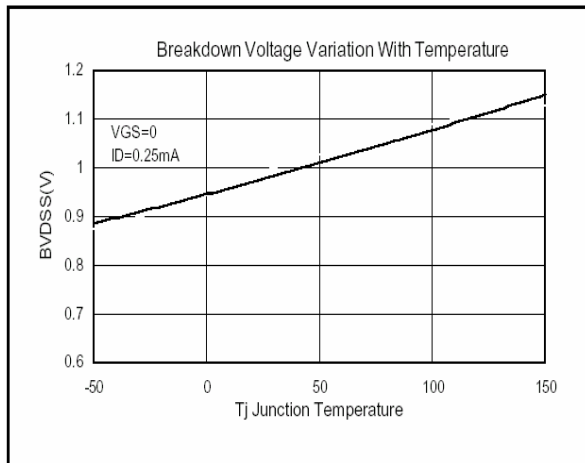
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions	
Drain-Source Breakdown Voltage	BV _{DSS}	60	-	-	V	V _{GS} =0, I _D =10uA	
Gate Threshold Voltage	V _{GS(th)}	1	-	2.5	V	V _{DS} =2.5V, I _D =0.25mA	
Gate Body Leakage Current	I _{GSS}	-	-	±100	nA	V _{GS} =±20V, V _{DS} =0	
Zero Gate Voltage Drain Current	I _{dss}	-	-	1	uA	V _{DS} =60V, V _{GS} =0	
On-State Drain Current	I _{D(ON)}	500	-	-	mA	V _{DS} =7.5V, V _{GS} =10V	
Static Drain-Source on-State Resistance	R _{DS(ON)}	-	-	7.5	Ω	I _d =50mA, V _{GS} =5V	25°C
		-	-	13.5			125°C
		-	-	7.5		I _d =500mA, V _{GS} =10V	25°C
		-	-	13.5			125°C
Forward Transconductance	G _{FS}	80	-	-	mS	V _{DS} >2 V _{DS(ON)} , I _D =200mA	
Input Capacitance	C _{iss}	-	-	50	pF	V _{DS} =25V, V _{GS} =0V, f=1MHz	
Output Capacitance	C _{oss}	-	-	25	pF		
Reverse Transfer Capacitance	C _{rss}	-	-	5	pF		

(1)The Power Dissipation of the package may result in a continuous train current.

(2)Pulse Width $\leq 300\mu s$, Duty cycle $\leq 2\%$.

Characteristics Curve





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