

GTM

CORPORATION

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G2N7002

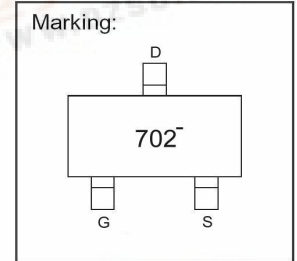
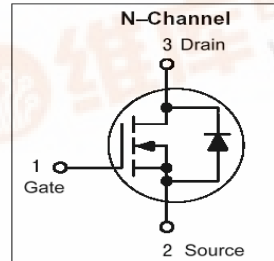
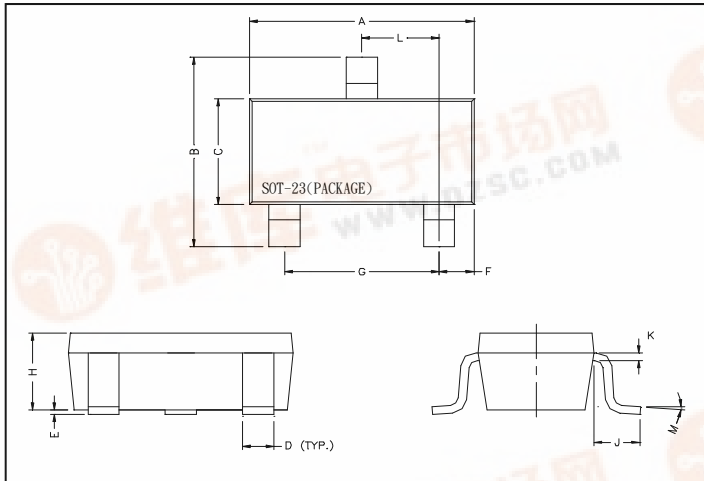
N-CHANNEL ENHANCEMENT MODE POWER MOSFET

BV _{DSS}	60V
R _{DS(ON)}	4.5Ω
I _D	500mA

Description

The G2N7002 is universally used for all commercial-industrial surface mount applications.

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	1.90	REF.
B	2.40	2.80	H	1.00	1.30
C	1.40	1.60	K	0.10	0.20
D	0.35	0.50	J	0.40	-
E	0	0.10	L	0.85	1.15
F	0.45	0.55	M	0°	10°

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	V _{DS}	60	V
Gate-Source Voltage	V _{GS}	±20	V
- Continuous			
- Non-repetitive (tp ≤ 50us)	V _{GSM}	±40	V
Continuous Drain Current ⁽¹⁾	I _D	500	mA
Pulsed Drain Current ⁽²⁾	I _{DM}	800	mA
Power Dissipation	P _D	225	mW
Thermal Resistance, Junction-to-Ambient	R _{thJA}	556	°C/W

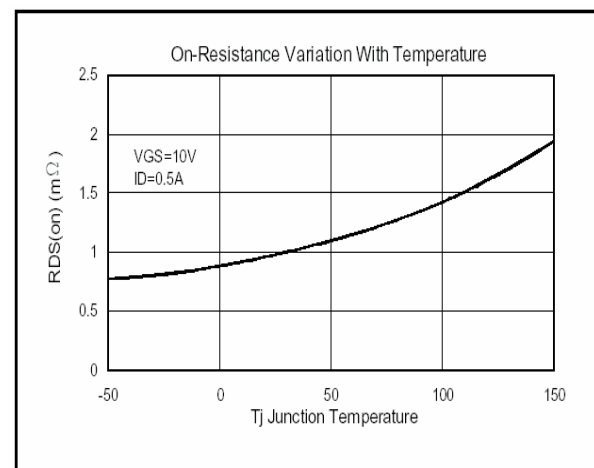
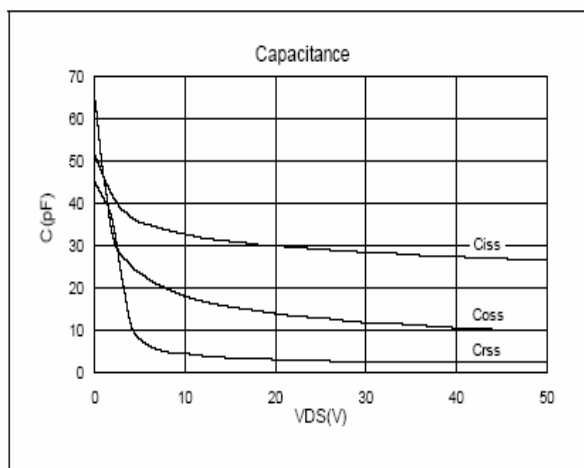
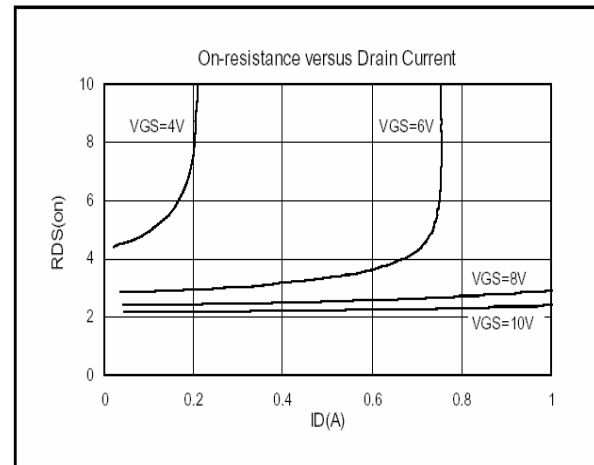
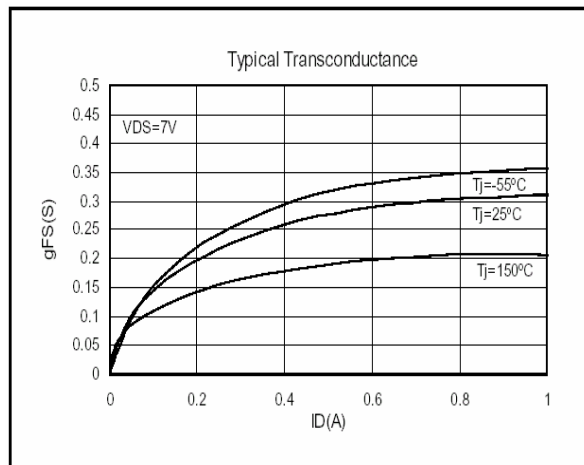
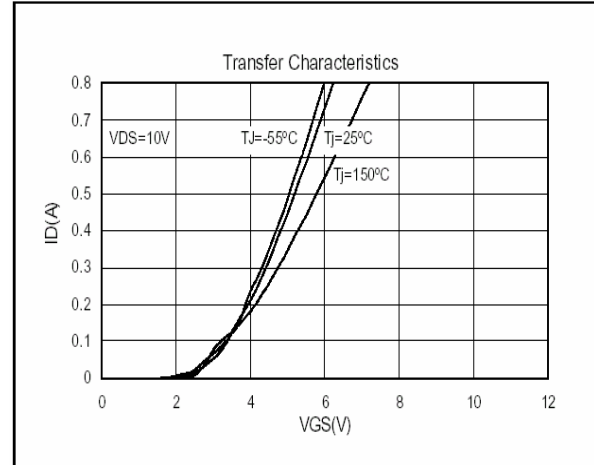
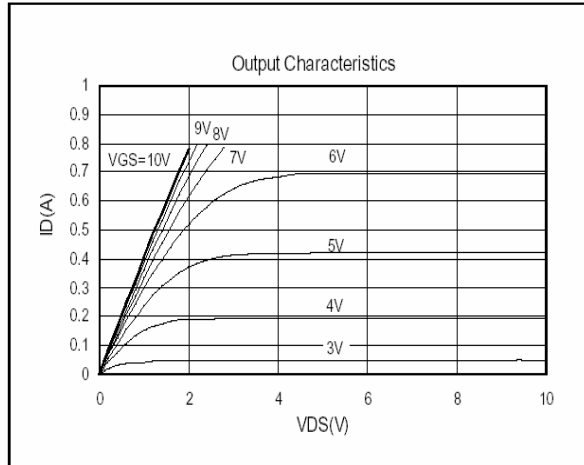
Electrical Characteristics (Tj = 25°C unless otherwise specified)

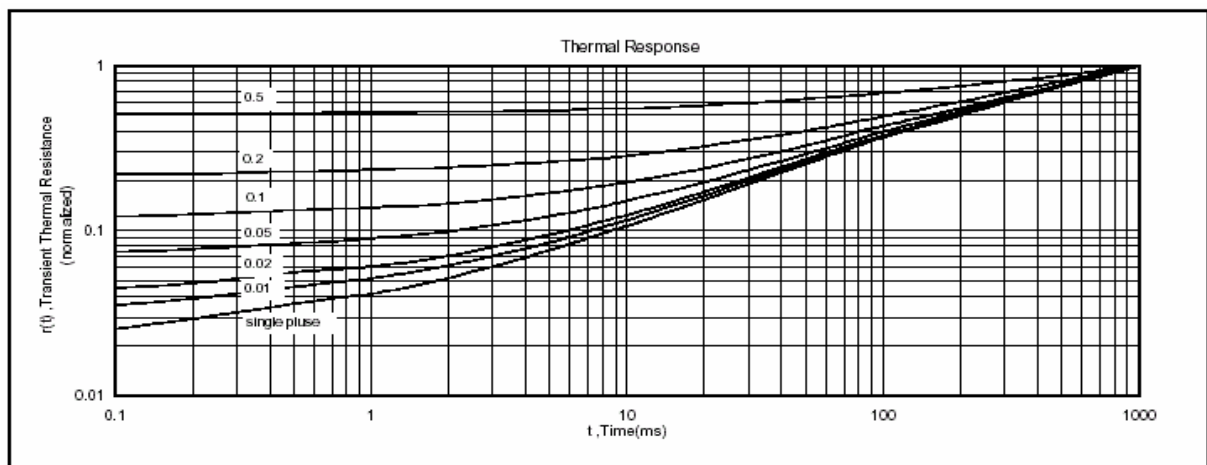
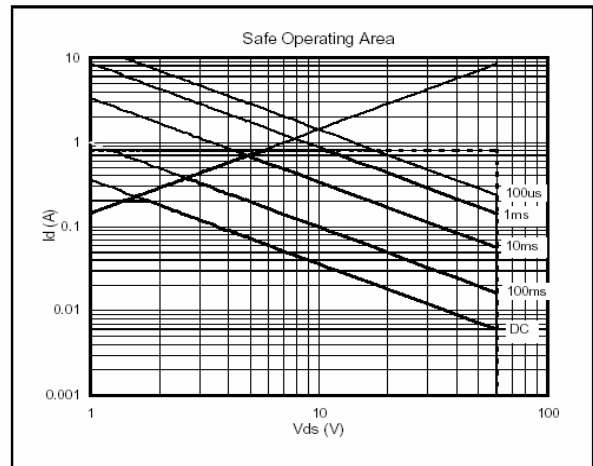
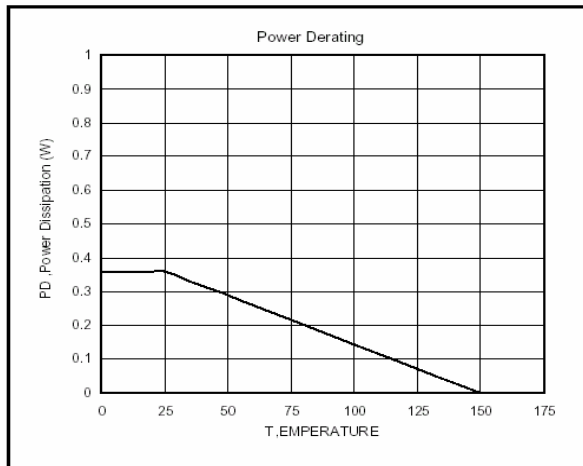
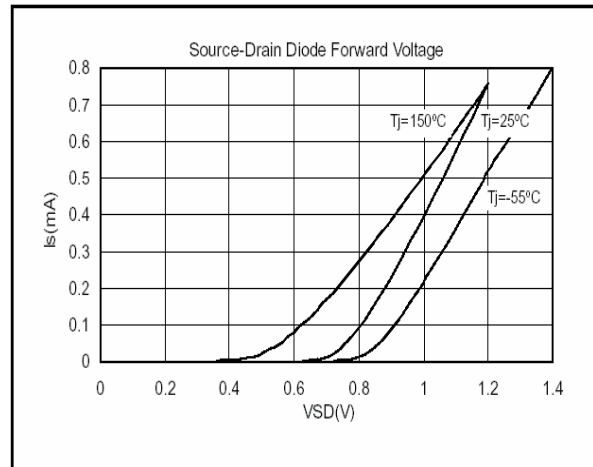
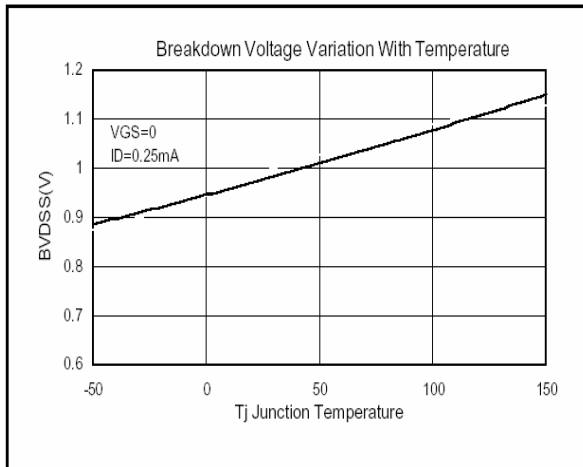
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Drain-Source Breakdown Voltage	BV _{DSS}	60	-	-	V	V _{GS} =0, I _D =250uA
Gate Threshold Voltage	V _{GS(th)}	1	-	2.5	V	V _{DS} =2.5V, I _D =0.25mA
Gate Body Leakage Current	I _{GSS}	-	-	±100	nA	V _{GS} =±20V, V _{DS} =0
Zero Gate Voltage Drain Current	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)}	-	-	5	Ω	I _D =50mA, V _{GS} =5V
		-	-	4.5		I _D =500mA, V _{GS} =10V
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 ≤ 300us, Duty cycle ≤ 2%.

Characteristics Curve





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