



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

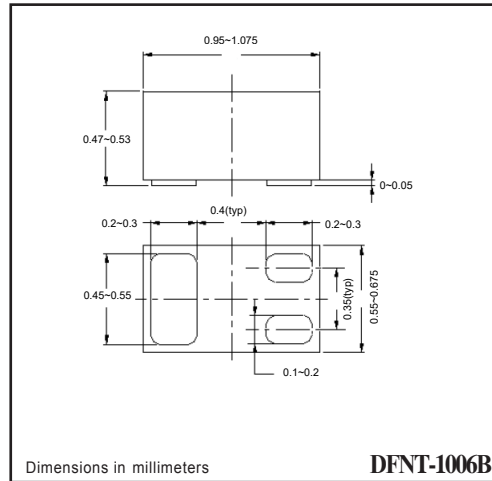
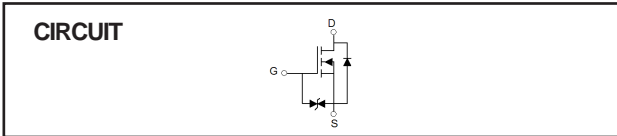
N-Channel Enhancement Mode Field Effect Transistor

VOLTAGE 20 Volts CURRENT 0.8 Ampere

CHMNB00HESG7GP-S

FEATURE

- * Small surface mounting type. (DFNT-1006B)
- * Extremely low threshold voltage.
- * ESD Protected.



MAXIMUM RATING @ Ta=25°C unless otherwise specified (Note 1)

Symbol	Parameter	Value	Units
V _{DSS}	Drain-Source voltage	20	V
V _{GSS}	Gate -Source voltage	± 10	V
I _D	Drain current (Continuous)	800	mA
I _{DM}	Drain Current (Pulsed) (Note 1)	1000	mA
P _D	Maximum Drain Current-Continue	450	mW
R _{θJA}	Thermal Resistance, Junction-to-Ambient	279	°C/W
T _J	Operating Junction Temperature	+150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTIC (CHMNB00HESG7GP-S)

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

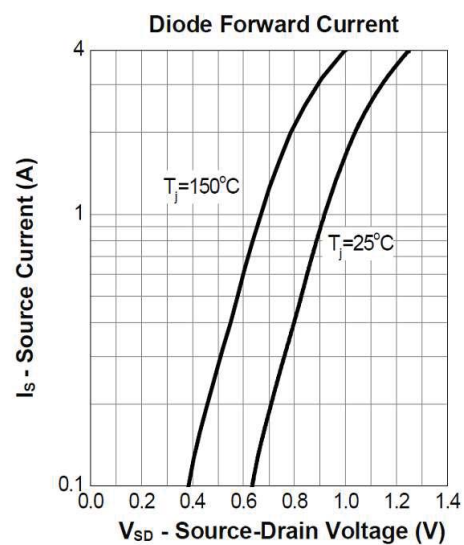
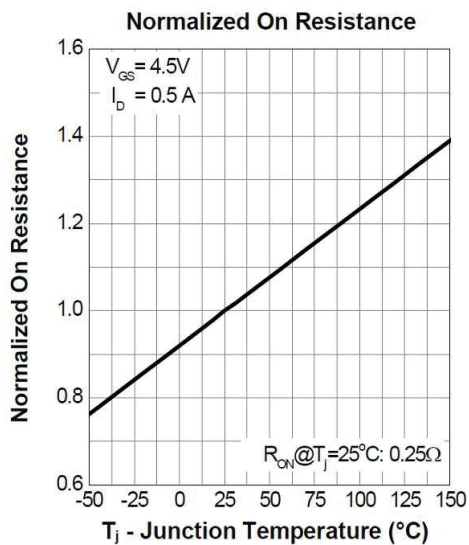
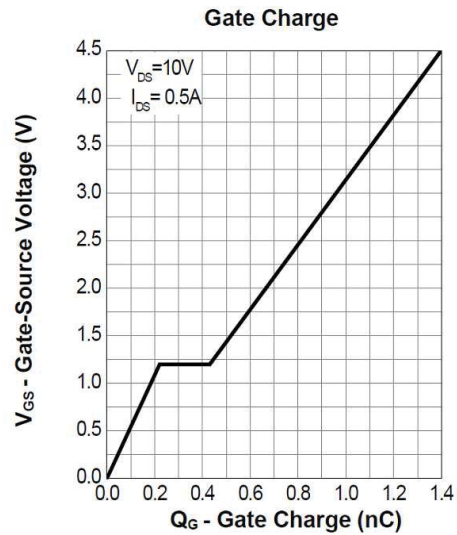
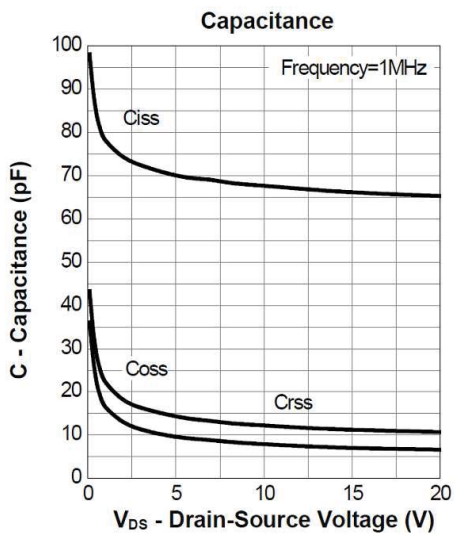
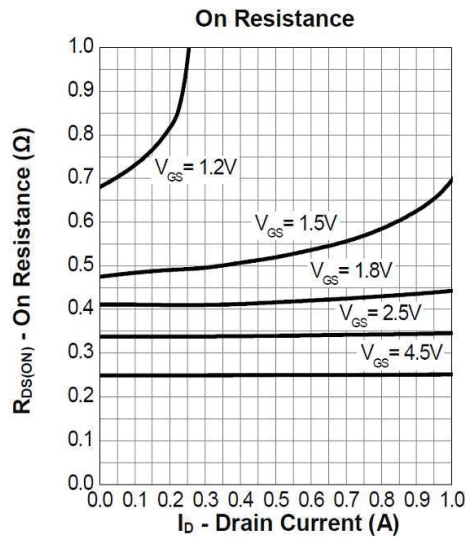
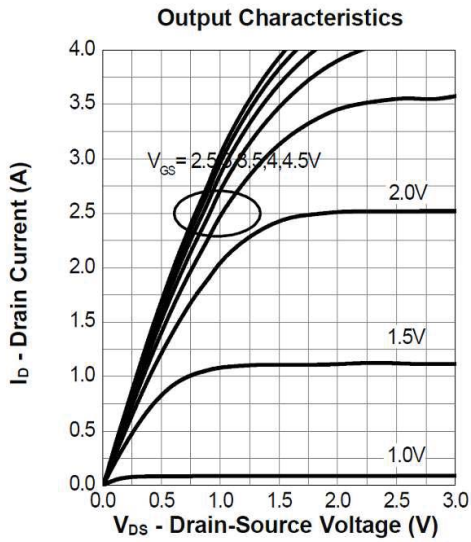
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	20	-	-	V
Gate-body Leakage	I_{GSS}	Forward $V_{DS}=0V, V_{GS}=8V$	-	-	10	μA
		Reverse $V_{DS}=0V, V_{GS}=-8V$	-	-	-10	
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=16V, V_{GS}=0V$	-	-	1	μA
ON CHARACTERISTICS ^(Note 2)						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.3	0.65	1.0	V
Static drain-Source on-resistance	$R_{DS(on)}$	$V_{GS}=4.5V, I_D=0.5A$	-	280	400	m Ω
		$V_{GS}=2.5V, I_D=0.2A$	-	350	650	
		$V_{GS}=1.8V, I_D=0.1A$	-	400	800	
		$V_{GS}=1.5V, I_D=0.05A$	-	500	1200	
		$V_{GS}=1.2V, I_D=0.02A$	-	700	3000	
DYNAMIC CHARACTERISTICS						
Total Gate Charge	Q_g	$V_{DS} = 10V$ $I_D = 0.5A$	-	1.4	-	nC
Gate-Source Charge	Q_{gs}		-	0.22	-	nC
Gate-Drain Charge	Q_{gd}		$V_{GS} = 4.5V,$	-	0.21	-
Input capacitance	C_{ISS}	$V_{DS}=10V, V_{GS}=0V, f=1.0MHz$	-	67	-	pF
Output capacitance	C_{OSS}		-	19	-	
Reverse transfer capacitance	C_{RSS}		-	6	-	
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_{D(ON)}$	$V_{DD} = 10V,$ $I_D = 150mA$ $V_{GEN} = 4V$ $R_{GEN} = 10\Omega$	-	2.8	-	ns
Turn-On Rise Time	t_r		-	20	-	
Turn-Off Delay Time	$t_{D(OFF)}$		-	23	-	
Turn-Off Fall Time	t_f		-	23	-	
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
Drain-Source diode forward voltage	V_{SD}	$V_{GS}=0V, I_S=500mA$	-	0.87	1.3	V

Notes:

1. Pulse width limited by maximum junction temperature.
2. Pulse test: Pulse width $\cong 300\mu S$, Duty cycle $\cong 2\%$

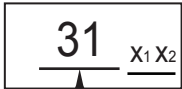
RATING CHARACTERISTIC CURVES (CHMNB00HESG7GP-S)

Typical Electrical Characteristics



The Marking and Part No. for CHMNB00HESG7GP-S (DFNT-1006B)

Marking:



Marking Code

Date Code Standard

X1


X2

Date Code (會變更)

Line code (會變更)

Date Code	N	P	Q	R	S	T	U	V	W	X	Y	Z
2018Year	JAN.	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG.	SEP.	OCT	NOV.	DEC.

Date Code	A	B	C	D	E	F	G	H	J	K	L	M
2019Year	JAN.	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG.	SEP.	OCT	NOV.	DEC.

CUSTOMER :	APPROVED :	 CHENMKO LTD.
APPROVED :	CHECKED :	
CHECKED :	DRAWN :	