CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

CHM3545SGP

SURFACE MOUNT

Dual N-Channel Enhancement Mode Field Effect Transistor

VOLTAGE 40 Volts CURRENT 0.3 Ampere

APPLICATION

* Drivers: Relays, Solenoids, Lamps, Hammers, Display, Memories, Transistors, etc.
* High saturation current capability. Direct Logic-Level Interface: TTL/CMOS
* Battery Operated Systems

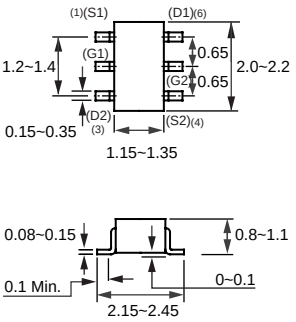
FEATURE

* Small surface mounting type. (SC-88/SOT-363)
* High density cell design for low $R_{DS(ON)}$.

CONSTRUCTION

* Dual N-Channel Enhancement

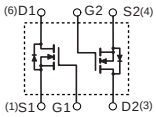
SC-88/SOT-363



Dimensions in millimeters

SC-88/SOT-363

CIRCUIT



Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Symbol	Parameter	CHM3545SGP	Units
V_{DSS}	Drain-Source Voltage	40	V
V_{GSS}	Gate-Source Voltage	±20	V
I_D	Maximum Drain Current - Continuous	0.3	A
	- Pulsed	1.0	
P_D	Maximum Power Dissipation	350	mW
T_J	Operating Temperature Range	-55 to 150	°C
T_{STG}	Storage Temperature Range	-55 to 150	°C

Thermal characteristics

$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient	375	°C/W

2010-09

ELECTRICAL CHARACTERISTIC (CHM3545SGP)

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS} = 0 V, I_D = 150 µA	40			V
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS} = 40 V, V_{GS} = 0 V			1	µA
I_{GSSF}	Gate-Body Leakage	V_{GS} = 20V, V_{DS} = 0 V			+100	nA
I_{GSSR}	Gate-Body Leakage	V_{GS} = -20V, V_{DS} = 0 V			-100	nA
ON CHARACTERISTICS						
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS} = V_{GS}, I_D = 250 µA	1.0		1.3	V
$R_{DS(ON)}$	Static Drain-Source On-Resistance	V_{GS}=5V, I_D=0.2A		3.2	5	Ω
		V_{GS}=2.5V, I_D=0.02A		7.5	10	
Dynamic Characteristics						
C_{iss}	Input Capacitance	V_{DS} = 25V, V_{GS} = 0V, f = 1.0 MHz		43		pF
C_{oss}	Output Capacitance			20		
C_{rss}	Reverse Transfer Capacitance			6		
SWITCHING CHARACTERISTICS						
Q_g	Total Gate Charge	V_{DS}=30V, I_D=1A, V_{GS}=5V		1.4	2.0	nC
Q_{gs}	Gate-Source Charge			0.8		
Q_{gd}	Gate-Drain Charge			0.5		
t_{on}	Turn-On Time	V_{DD}= 30V, I_D= 0.5A , V_{GEN}= 4.5 V, R_G= 4.7Ω		5		nS
t_r	Rise Time			15		
t_{off}	Turn-Off Time			7		
t_f	Fall Time			8		
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
I_S	Drain-Source Diode Forward Current				0.12	A
V_{SD}	Drain-Source Diode Forward Voltage	I_S = 0.12A, V_{GS} = 0 V			1.5	V