



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

Dual Digital Silicon Transistor

VOLTAGE 50 Volts CURRENT 100 mAmpere

CHUMG4GP

APPLICATION

* Switching circuit, Inverter, Interface circuit, Driver circuit.

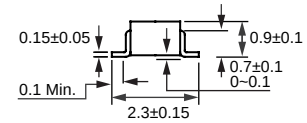
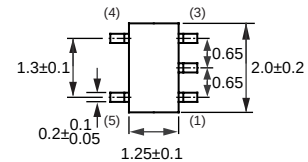
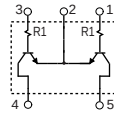
FEATURE

- * Small surface mounting type. (SC-88A/SOT-353)
- * High current gain.
- * Suitable for high packing density.
- * Low collector-emitter saturation.
- * High saturation current capability.
- * Both the CHDTC114T in one package.
- * Built in bias resistor(R1=10kΩ, Typ.)



SC-88A/SOT353

CIRCUIT



Dimensions in millimeters

SC-88A/SOT353

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-Base voltage		50	V
V _{CEO}	Collector-Emitter voltage		50	V
V _{EB0}	Emitter-Base voltage		5	V
I _{C(Max.)}	Collector current		100	mA
P _D	Power dissipation	T _{amb} ≤ 25 °C, Note 1	200	mW
T _{STG}	Storage temperature		-55 ~ +150	°C
T _J	Junction temperature		-55 ~ +150	°C
R _{θJ-S}	Thermal resistance , Note 1	junction - soldering point	625	°C/W

Note

1. Transistor mounted on an FR4 printed-circuit board.

2004-04

RATING CHARACTERISTIC (CHUMG4GP)

CHARACTERISTICS

T_{amb} = 25 °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
BV _{CBO}	Collector-base breakdown voltage	I _C =50uA	50	—	—	V
BV _{CEO}	Collector-emitter breakdown voltage	I _C =1.0mA	50	—	—	V
BV _{EBO}	Emitter-base breakdown voltage	I _E =50uA	5.0	—	—	V
I _{CBO}	Collector cutoff current	V _{CB} =50V	—	—	0.5	uA
I _{EBO}	Emitter cutoff current	V _{EB} =4V	—	—	0.5	uA
V _{CE(sat)}	Collector-emitter saturation voltage	I _C /I _B =1mA/0.1mA	—	—	0.3	V
h _{FE}	DC current gain	I _C =1mA; V _{CE} =5.0V	100	250	600	
R ₁	Input resistor		7.0	10.0	13.0	KΩ
f _T	Transition frequency	I _E =-5mA, V _{CE} =10.0V f=100MHz	—	250	—	MHz

Note

1.Pulse test: t_p≤300uS; δ≤0.02.

RATING CHARACTERISTIC CURVES (CHUMG4GP)

Typical Electrical Characteristics

Fig.1 Input voltage vs. output current (ON characteristics)

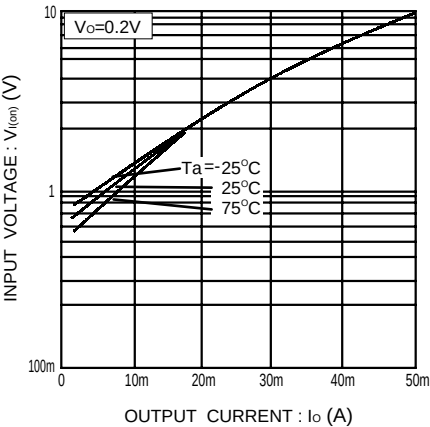


Fig.2 Output current vs. input voltage (OFF characteristics)

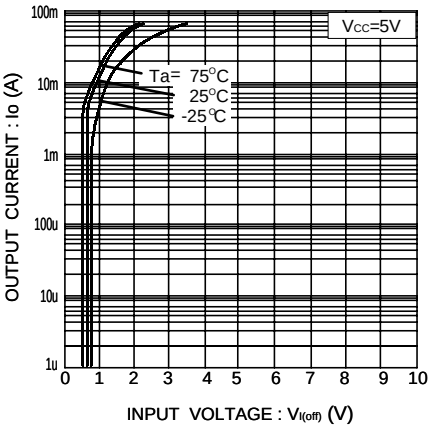


Fig.3 DC current gain vs. output current

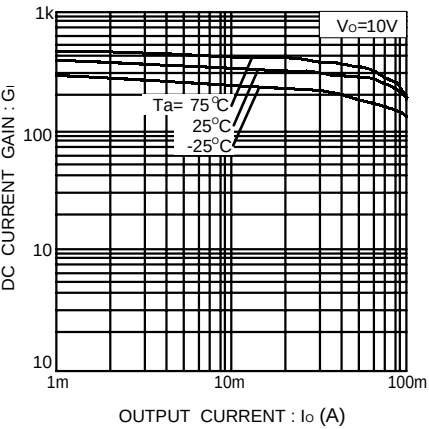


Fig.4 Output voltage vs. output current

