



CHENMKO ENTERPRISE CO.,LTD

CHEMA4PT

SURFACE MOUNT

Dual Digital Silicon Transistor

VOLTAGE 50 Volts CURRENT 100 mAmpere

Lead free devices

APPLICATION

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

FEATURE

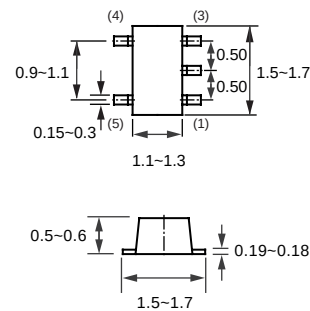
- * Small surface mounting type. (SOT-553)
- * High current gain.
- * Suitable for high packing density.
- * Low collector-emitter saturation.
- * High saturation current capability.
- * Two CHDTA114T chips in a package.
- * Built in bias resistor(R1=10kΩ, Typ.)

MARKING

* A4



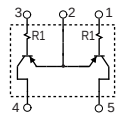
SOT553



Dimensions in millimeters

SOT553

CIRCUIT



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	Collector current		-100	mA
P _c	Collector Power dissipation	T _{amb} ≤ 25 °C, Note 1	150	mW
T _{STG}	Storage temperature		-55 ~ +150	°C
T _J	Junction temperature		150	°C

Note

2004-07

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

RATING CHARACTERISTIC (CHEMA4PT)

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
BV _{CBO}	Collector-Base breakdown voltage	I _C = -50uA	-50.0	–	–	V
BV _{CEO}	Collector-Emitter breakdown voltage	I _C = -1mA	-50.0	–	–	V
BV _{EBO}	Emitter-Base breakdown voltage	I _E = -50uA	-5.0	–	–	V
V _{CE(sat)}	Collector-Emitter Saturation voltage	I _C = -10mA; I _B = -1mA	–	–	-0.3	V
I _{CBO}	Collector-Base current	V _{CB} = -50V	–	–	-0.5	uA
I _{EBO}	Emitter-Base current	V _{EB} = -4V	–	–	-0.5	uA
h _{FE}	DC current gain	I _C = -1mA; V _{CE} = -5.0V	100	250	600	
R ₁	Input resistor		7	10	13	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 (CHEMA4PT)

Typical Electrical Characteristics

Fig.1 DC current gain vs. collector current

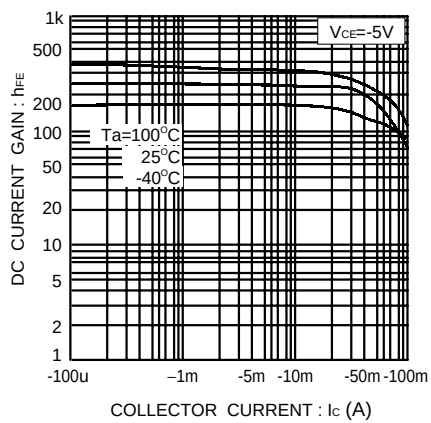


Fig.2 Collector-emitter saturation voltage vs. collector current

