



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT
Dual Digital Silicon Transistor**

VOLTAGE 50 Volts CURRENT 100 mAmpere

Lead free devices

CHUMA6PT

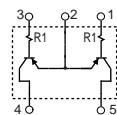
APPLICATION

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

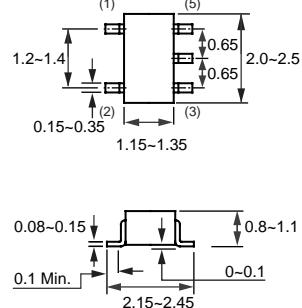
FEATURE

- * Small surface mounting type. (SC-88A/SOT-353)
- * High current gain.
- * Suitable for high packing density.
- * Low collector-emitter saturation.
- * High saturation current capability.
- * Two CHDTA144T chips in a package.
- * Built in bias resistor($R_1=47\text{k}\Omega$, Typ.)

CIRCUIT



SC-88A/SOT353



Dimensions in millimeters

SC-88A/SOT353

LIMITING VALUES

In accordance with the Absolute Maximum Rating System .

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-Base voltage		-50	V
V_{CEO}	Collector-Emitter voltage		-50	V
V_{EBO}	Emitter-Base voltage		-5	V
I_c	Collector current		-100	mA
P_c	Collector Power dissipation	$T_{amb} \leq 25^\circ\text{C}$, Note 1	150	mW
T_{STG}	Storage temperature		-55 +150	$^\circ\text{C}$
T_J	Junction temperature		-55 +150	$^\circ\text{C}$
$R_{\theta J-S}$	Thermal resistance , Note 1	junction - soldering point	140	$^\circ\text{C}/\text{W}$

Note

- Transistor mounted on an FR4 printed-circuit board.

RATING CHARACTERISTIC (CHUMA6PT)

CHARACTERISTICS

$T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
BVCBO	Collector-Base breakdown voltage	$I_C = -50\mu\text{A}$	-50.0	-	-	V
BVCEO	Collector-Emitter breakdown voltage	$I_C = -1\text{mA}$	-50.0	-	-	V
BVEBO	Emitter-Base breakdown voltage	$I_E = -50\mu\text{A}$	-5.0	-	-	V
VCE(sat)	Collector-Emitter Saturation voltage	$I_C = -5\text{mA}; I_B = -0.5\text{mA}$	-	-	-0.3	V
I_{CBO}	Collector-Base current	$V_{CB} = -50\text{V}$	-	-	-0.5	μA
I_{EBO}	Emitter-Base current	$V_{EB} = -4\text{V}$	-	-	-0.5	μA
h_{FE}	DC current gain	$I_C = -1\text{mA}; V_{CE} = -5.0\text{V}$	100	250	600	
R_1	Input resistor		32.9	47	61.1	$\text{k}\Omega$
f_T	Transition frequency	$I_E = 5\text{mA}, V_{CE} = -10.0\text{V}$ $f = 100\text{MHz}$	-	250	-	MHz

Note

1. Pulse test: $t_p \leq 300\mu\text{s}$; $\delta \leq 0.02$.

RATING CHARACTERISTIC CURVES (CHUMA6PT)

Typical Electrical Characteristics

Fig.1 DC current gain vs. collector current

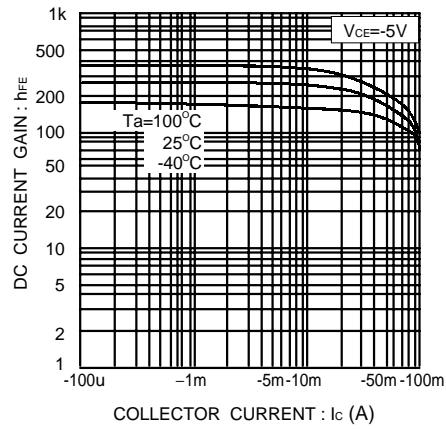


Fig.2 Collector-emitter saturation voltage vs. collector current

