



**CHENMKO ENTERPRISE CO.,LTD**

**CH4033ZPT**

**SURFACE MOUNT  
PNP SILICON Transistor**

VOLTAGE 80 Volts CURRENT 1 Ampere

Lead free devices

**APPLICATION**

- \* Telephony and professional communication equipment.
- \* Other switching applications.

**FEATURE**

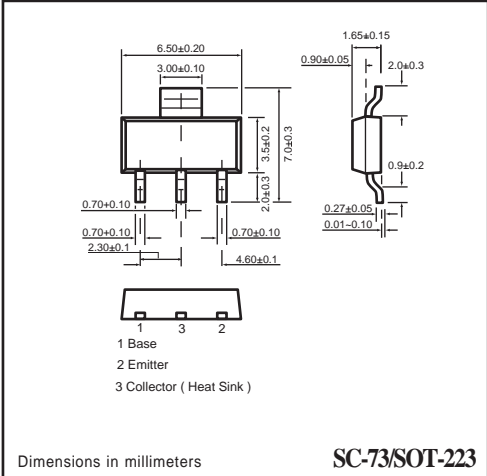
- \* Small flat package. ( SC-73/SOT-223 )
- \* Suitable for high packing density.
- \* High saturation current capability.
- \* Voltage controlled small signal switch.

**CONSTRUCTION**

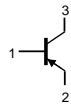
- \* PNP SILICON Transistor

**MARKING**

- \* ZEP



**CIRCUIT**



**LIMITING VALUES**

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V <sub>CB0</sub>	collector-base voltage	open emitter	-	80	V
V <sub>CEO</sub>	collector-emitter voltage	open base	-	80	V
V <sub>EBO</sub>	emitter-base voltage	open collector	-	5.0	V
I <sub>C</sub>	collector current (DC)		-	1000	mA
I <sub>CM</sub>	peak collector current		-	1500	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	-	2.0	W
T <sub>stg</sub>	storage temperature		-65	+150	°C
T <sub>j</sub>	junction temperature		-	150	°C
T <sub>amb</sub>	operating ambient temperature		-65	+150	°C

**Note**

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

## RATING CHARACTERISTIC CURVES ( CH4033ZPT )

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	357	K/W

#### Note

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

### CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$I_E = 0; V_{CB} = 60\text{ V}$	–	50	nA
$I_{EBO}$	emitter cut-off current	$I_C = 0; V_{EB} = 5\text{ V}$	–	10	nA
$h_{FE}$	DC current gain	$I_C = -0.1\text{ mA}; V_{CE} = 5\text{ V}$ $I_C = 100\text{ mA}; V_{CE} = 5\text{ V}$ $I_C = 500\text{ mA}; V_{CE} = 5\text{ V}$ $I_C = 1.0\text{ A}; V_{CE} = 5\text{ V}$	75 100 70 25	– 300 – –	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C = 150\text{ mA}; I_B = 15\text{ mA}$	–	0.15	V
		$I_C = 500\text{ mA}; I_B = 50\text{ mA}$	–	0.5	V
$V_{BEsat}$	base-emitter saturation voltage	$I_C = 150\text{ mA}; I_B = 15\text{ mA}$	–	0.9	V
		$I_C = 500\text{ mA}; I_B = 50\text{ mA}$	–	1.1	V
$C_{ob}$	collector capacitance	$I_E = I_C = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$	–	20	pF
$C_{ib}$	emitter capacitance	$I_C = I_C = 0; V_{BE} = 500\text{ mV}; f = 1\text{ MHz}$	–	110	pF
$f_T$	transition frequency	$I_C = 50\text{ mA}; V_{CE} = 10\text{ V}; f = 1.0\text{ MHz}$	100	–	MHz