



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
Transistor**

VOLTAGE 50 Volts CURRENT 0.1 Ampere

**2SC6114G5GP**

**APPLICATION**

\* Small signal low frequency amplifier.

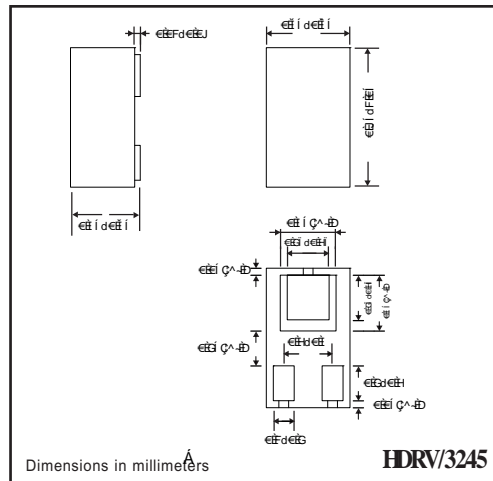
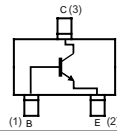
**FEATURE**

- \* Surface mount package. (FBPT-1023)
- \* Low cob. Cob=0.2pF(Typ.)
- \* Pc= 150mW

**CONSTRUCTION**

\* NPN Silicon Transistor

**CIRCUIT**



**LIMITING VALUES**

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V <sub>CBO</sub>	collector-base voltage	open emitter	—	50	V
V <sub>CEO</sub>	collector-emitter voltage	open base	—	50	V
V <sub>EBO</sub>	emitter-base voltage	open collector	—	5	V
I <sub>C</sub>	collector current DC		—	100	mA
I <sub>CP</sub>	peak collector current	Pw=1ms Single pulse	—	200	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	—	150	mW
T <sub>stg</sub>	storage temperature		-55	+150	°C
T <sub>j</sub>	junction temperature		—	+150	°C

**Note**

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

2012-02

## ELECTRICAL CHARACTERISTICS ( 2SC6114G5GP )

ELECTRICAL CHARACTERISTICS ( At  $T_A = 25^\circ\text{C}$  unless otherwise noted )

SYMBOL	PARAMETER	CONDITIONS	MIN.	Typ.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$V_{CB}=15\text{V}$	–	–	0.1	$\mu\text{A}$
$I_{EBO}$	emitter cut-off current	$V_{EB}=5\text{V}$	–	–	0.1	$\mu\text{A}$
$BV_{CBO}$	collector-base breakdown voltage	$I_C = 50\mu\text{A}$	50	–	–	V
$BV_{CEO}$	collector-emitter breakdown voltage	$I_C = 1\text{mA}$	50	–	–	V
$BV_{EBO}$	emitter-base breakdown voltage	$I_E = 50\mu\text{A}$	5	–	–	V
$h_{FE}$	DC current transfer ratio	$V_{CE}=6\text{V}$ , $I_C=2\text{mA}$	120	–	390	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C/I_B=25\text{mA}/2.5\text{mA}$	–	–	300	mV
$C_{ob}$	collector output capacitance	$I_E = 0$ ; $V_{CE} = 10\text{V}$ ; $f = 1\text{MHz}$	–	1.0	–	pF
$f_T$	transition frequency	$I_E = -1\text{mA}$ ; $V_{CE} = 10\text{V}$ ; $f = 100\text{MHz}$	–	130	–	MHz

### Note

1.  $h_{FE}$ : Classification Q: 120 to 270, R: 180 to 390

# RATING CHARACTERISTIC CURVES ( 2SC6114G5GP )

## Electrical characteristic curves

