



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

**SURFACE MOUNT
General Purpose PNP Transistor**

VOLTAGE 50 Volts CURRENT 0.15 Ampere

2SA1037M1PT

APPLICATION

* Small Power Amplifier .

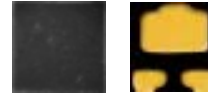
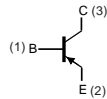
FEATURE

- * Small surface mounting type. (FBPT-723)
- * Low saturation voltage $V_{CE(sat)} = -0.5V(\text{max.})(I_c = -50mA)$
- * Low cob. $C_{ob} = 4.0pF(\text{Typ.})$
- * $P_c = 150mW$ (Collector power dissipation).

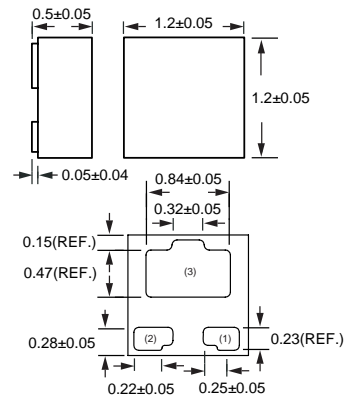
CONSTRUCTION

- * PNP Silicon Transistor
- * Epitaxial planner type

CIRCUIT



FBPT-723



Dimensions in millimeters

FBPT-723

MAXIMUM RATINGS (At $T_A = 25^\circ C$ unless otherwise noted)

RATINGS	CONDITION	SYMBOL	MIN.	MAX.	UNITS
Collector - Base Voltage	Open Emitter	V_{CBO}	-	-60	Volts
Collector - Emitter Voltage	Open Base	V_{CEO}	-	-50	Volts
Emitter - Base Voltage	Open Collector	V_{EBO}	-	-6	Volts
Collector Current DC		I_c	-	-150	mAmps
Collector Power Dissipation	$T_A \leq 25^\circ C$	P_{TOT}	-	150	mW
Storage Temperature		T_{STG}	-55	+150	$^\circ C$
Junction Temperature		T_J	-	+150	$^\circ C$

2007-01

Note

1. Transistor mounted on ceramic substrate 50mmX50mmX0.8t.
2. Measured at Pulse Width 300 us, Duty Cycle 2%.

RATING CHARACTERISTICS (2SA1037M1PT)

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

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Collector Cut-off Current	$V_{CB} = -60\text{V}$	I_{CBO}	-	-	-0.1	μA
Emitter Cut-off Current	$V_{EB} = -6\text{V}$	I_{EBO}	-	-	-0.1	μA
DC Current Gain	$V_{CE} = -6\text{V}$; Note 1 $I_C = -1\text{mA}$; Note 2	h_{FE}	120	-	560	
Collector-Emitter Saturation Voltage	$I_C = -50\text{mA}$; $I_B = -5\text{mA}$	V_{CEsat}	-	-	-0.5	Volts
Collector-Emitter Breakdown Voltage	$I_C = -1\mu\text{A}$	V_{CEO}	-50	-	-	Volts
Output Collector Capacitance	$I_E = I_C = 0$; $V_{CB} = -12\text{V}$; $f = 1\text{MHz}$	C_{ob}	-	4.0	5.0	pF
Transition Frequency	$I_E = 2\text{mA}$; $V_{CE} = -12\text{V}$; $f = 30\text{MHz}$	f_T	-	140	-	MHz

Note :

1. Pulse test: $t_p \leq 300\mu\text{Sec}$; $\delta \leq 0.02$.
2. h_{FE} : Classification Q: 120 to 270, R: 180 to 390, S: 270 to 560

RATING CHARACTERISTIC CURVES (2SA1037M1PT)

Fig.1 Grounded emitter propagation characteristics

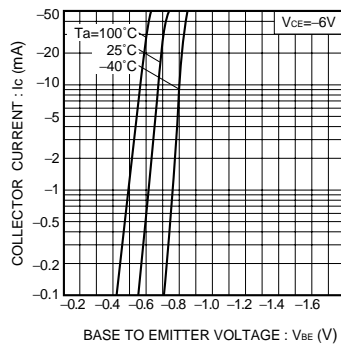


Fig.2 Grounded emitter output characteristics (1)

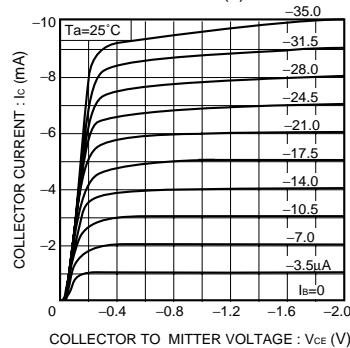
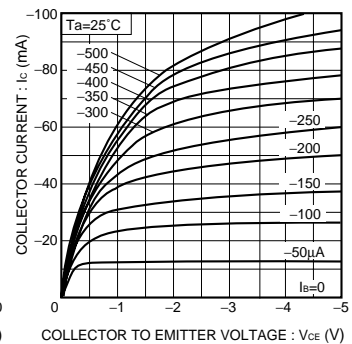


Fig.3 Grounded emitter output characteristics (2)



RATING CHARACTERISTIC CURVES (2SA1037M1PT)

Fig.4 Collector-emitter saturation voltage vs. collector current

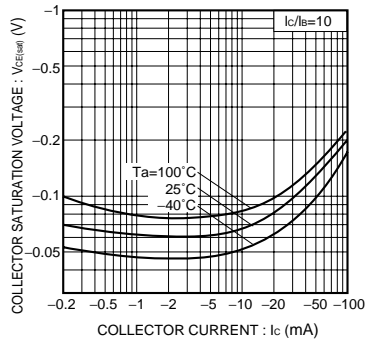


Fig.5 DC current gain vs. collector current

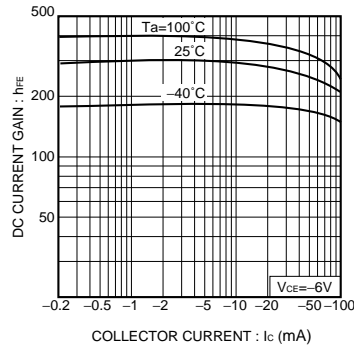


Fig.6 Gain bandwidth product vs. emitter current

