



CHENMKO ENTERPRISE CO.,LTD

2SB1188PT

SURFACE MOUNT

PNP Medium Power Transistor

VOLTAGE 32 Volts CURRENT 2 Ampere

Lead free devices

APPLICATION

* Power driver and Dc to DC convertor .

FEATURE

* Small flat package. (SC-62/SOT-89)
 * Low saturation voltage $V_{CE(sat)} = -0.5V$ (typ.) ($I_C/I_B = -2A/-0.2A$)

CONSTRUCTION

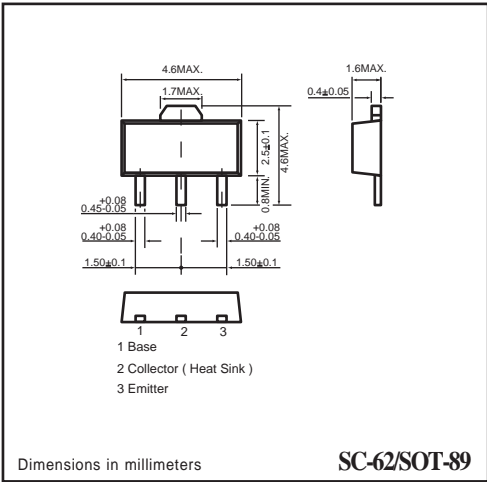
* PNP Switching Transistor

MARKING

* HFE(P):P1188
 * HFE(Q):Q1188
 * HFE(R):R1188

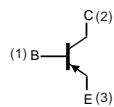


SC-62/SOT-89



SC-62/SOT-89

CIRCUIT



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

RATINGS	CONDITION	SYMBOL	MIN.	MAX.	UNITS
Collector - Base Voltage	Open Emitter	V_{CB0}	-	-40	Volts
Collector - Emitter Voltage	Open Base	V_{CE0}	-	-32	Volts
Emitter - Base Voltage	Open Collector	V_{EB0}	-	-5	Volts
Collector Current DC		I_C	-	-2	Amps
Peak Collector Current	Note 1	I_{CM}	-	-3	Amps
Total Power Dissipation	Note 2	P_{TOT}	-	2	W
Storage Temperature		T_{STG}	-55	+150	$^\circ C$
Junction Temperature		T_J	-	+150	$^\circ C$

Note

1. Single pulse, $P_w = 100ms$
2. When mounted on a $40 \times 40 \times 0.7$ mm ceramic board

2007-04

RATING CHARACTERISTIC CURVES (2SB1188PT)

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

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Collector-Base Breakdown Voltage	$I_C = -50\mu\text{A}$	BV_{CB0}	-40	-	-	Volts
Collector-Emitter Breakdown Voltage	$I_C = -1.0\text{mA}$	BV_{CE0}	-32	-	-	Volts
Emitter-Base Breakdown Voltage	$I_E = -50\mu\text{A}$	BV_{EB0}	-5	-	-	Volts
Collector Cut-off Current	$I_E = 0; V_{CB} = -20\text{V}$	I_{CB0}	-	-	-1.0	μA
Emitter Cut-off Current	$I_C = 0; V_{EB} = -4\text{V}$	I_{EB0}	-	-	-1.0	μA
DC Current Gain	$V_{CE} = -3\text{V}; \text{Note 3}$ $I_C = -0.5\text{A}$	h_{FE}	82	-	390	
Collector-Emitter Saturation Voltage	$I_C = -2\text{A}; I_B = -0.2\text{A}; \text{Note 3}$	V_{CEsat}	-	-0.5	-0.8	Volts
Output Capacitance	$I_E = I_C = 0; V_{CB} = -10\text{V};$ $f = 1\text{MHz}$	C_C	-	50	-	pF
Transition Frequency	$I_E = -0.5\text{A}; V_{CE} = -5.0\text{V};$ $f = 100\text{MHz}$	f_T	-	100	-	MHz

Note :

3. Measured using pulse current
4. h_{FE} Classification P: 82 to 180, Q: 120 to 270, R: 180 to 390

RATING CHARACTERISTIC CURVES (2SB1188PT)

Typical Electrical Characteristics

Figure 1. Grounded Emitter Propagation Characteristics

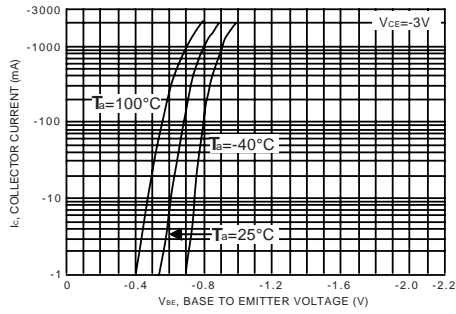


Figure 2. DC Current Gain vs Collector Current

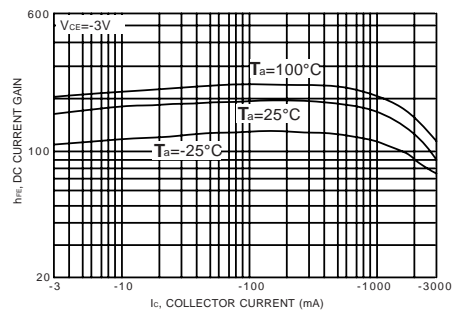


Figure 3. Collector-Emitter Saturation Voltage vs Collector Current

