CHENMKO ENTERPRISE CO.,LTD

SMALL FLAT
PNP Epitaxial Transistor

VOLTAGE 20 Volts CURRENT 5 Amperes

2SB1386PT

Lead free devices

APPLICATION

* Power driver and Strobe Flash .

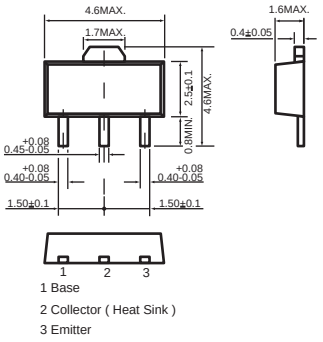
FEATURE

* Small flat package. (SC-62/SOT-89)
* Low saturation voltage $V_{CE(sat)}$=-0.35V(Typ.)(I_C/I_B=-4A/-0.1A)
* PC= 2.0W (mounted on ceramic substrate).
* High saturation current capability.

MARKING

* hFE Classification P : P86
Q : Q86
R: R86

SC-62/SOT-89

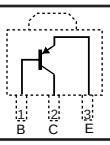


1 Base
2 Collector (Heat Sink)
3 Emitter

Dimensions in millimeters

SC-62/SOT-89

CIRCUIT



MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	CONDITION	SYMBOL	2SB1386PT	UNITS
Collector - Base Voltage	Open Emitter	V_{CBO}	-30	Volts
Collector - Emitter Voltage	Open Base	V_{CEO}	-20	Volts
Emitter - Base Voltage	Open Collector	V_{EBO}	-6	Volts
Collector Current DC		I_C	-5	Amps
Peak Collector Current		I_{CM}	-10	Amps
Total Power Dissipation	$T_A \leq 25^oC$; Note 1	P_{TOT}	2.0	W
Storage Temperature		T_{STG}	-55 to +150	°C
Junction Temperature		T_J	+150	°C
Operating Ambient Temperature		T_{AMB}	-55 to +150	°C

Note

2004-11

1. Transistor mounted on ceramic substrate by 40mmX40mmx0.7mm.

RATING CHARACTERISTIC CURVES (2SB1386PT)

CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

PARAMETERS	CONDITION	SYMBOL	MIN.	TYPE	MAX.	UNITS
Collector-Base breakdown voltage	I_C=-50uA	BV_{CBO}	-30	-	-	Volts
Collector-Emitter breakdown voltage	I_C=-1mA	BV_{CEO}	-20	-	-	Volts
Emitter-Base breakdown voltage	I_E=-50uA	BV_{EBO}	-6	-	-	Volts
Collector Cut-off Current	I_E=0; V_{CB}=-200V	I_{CBO}	-	-	-0.5	uA
Emitter Cut-off Current	I_C=0; V_{EB}=-5V	I_{CEO}	-	-	-0.5	uA
DC Current Gain	V_{CE}=-2V; Note 1 I_C=-0.5A	h_{FE}	82	-	390	
Collector-Emitter Saturation Voltage	I_C=-4A; I_B=-0.1A	V_{CEsat}	-	-0.35	-1.0	Volts
Output Capacitance	I_E=ie=0; V_{CB}=-20V; f=1MHz	C_C	-	60	-	pF
Transition Frequency	I_E=-0.05A; V_{CE}=-6.0V; f=100MHz	f_T	-	120	-	MHz

Note :

1. hFE(2) Classification P: 82 to 180, Q: 120 to 270, R: 180 to 390.

RATING CHARACTERISTIC CURVES (2SB1386PT)

Fig.1 Grounded emitter propagation characteristics

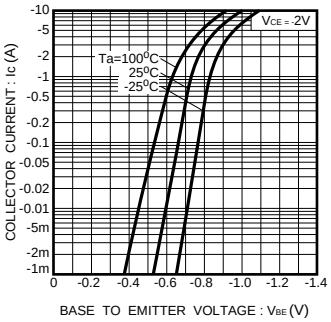


Fig.2 Grounded emitter output characteristics

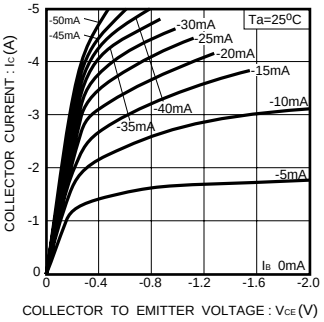


Fig.3 DC current gain vs. collector current (I)

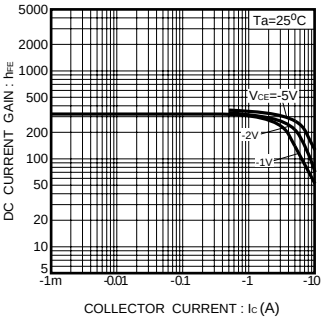


Fig.4 DC current gain vs. collector current (II)

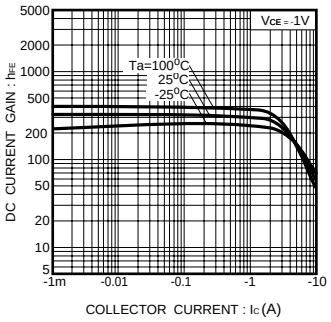


Fig.5 DC current gain vs. collector current (III)

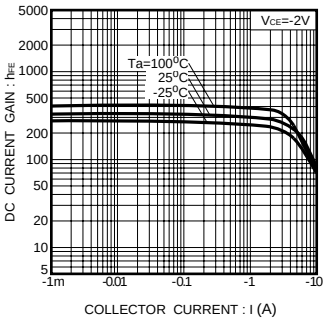


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

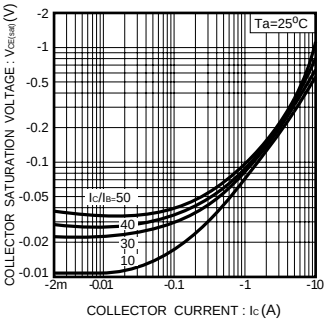


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

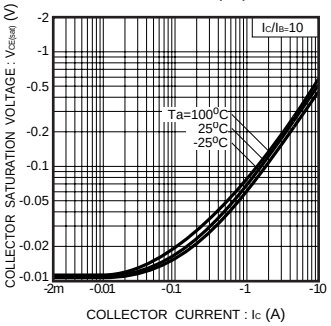


Fig.8 Collector-emitter saturation voltage vs. collector current (III)

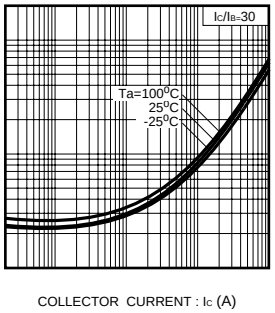


Fig.9 Collector-emitter saturation voltage vs. collector current (IV)