WEJ®

RoHS

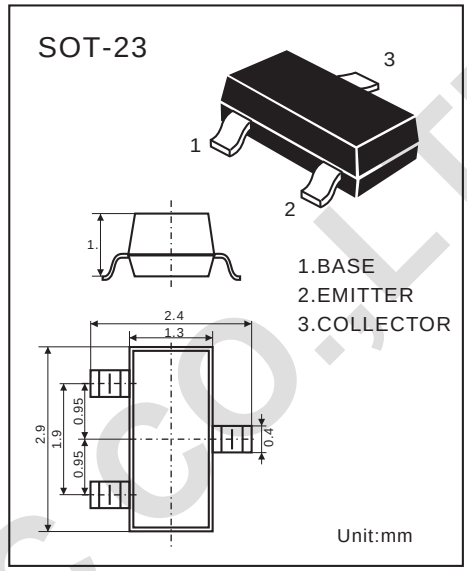
MMBT9015LT1

PNP EPITAXIAL SILICON TRANSISTOR

LOW FREQRENCY,LOW NOISE AMPLIFIER

- Complemen to MMPT9014LT1
- Collector-current:Ic=-100mA

  Collector-Emiller Voltage:V_{CE}=-45V



ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	Ic	-100	mA
Collector Dissipation Ta=25°C*	P_D	225	mW
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	-55~150	°C

Electrical Characteristics

(Ta=25°C)

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	BV_{CBO}	-50			V	I_C=-100μA I_E=0
Collector-Emitter Breakdown Voltage#	BV_{CEO}	-45			V	I_C=-1mA I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	-5			V	I_E=-100μA I_C=0
Collector-Base Cutoff Current	I_{CBO}			-50	nA	V_{CB}=-50V, V_C=0
Emitter-Base Cutoff Current	I_{EBO}			-50	nA	V_{CB}=-5V, I_C=0
DC Current Gain	H_{FE}	60	200	600		V_{CE}=-5V, I_C=1mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.20	-0.7	V	I_C=-100mA, I_B=-5mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.82	-1.0	V	I_C=-100mA, I_B=-5mA
Base-Emitter on Voltage	$V_{BE(on)}$	-0.6	-0.67	-0.75	V	V_{ce}=-5V, I_C=-2mA
Output Capacitance	C_{ob}		4.5	7	PF	V_{CB}=-10V, I_E=0 f=1MHz
Current Gain-Bandwidth Product	f_T	100	190		MHz	V_{CE}=-5V I_C=-10mA
Noise Figure	NF		0.7	10	dB	V_{CE}=-5V I_C=-0.2mA
						f=1MHz Rs=1Kohm

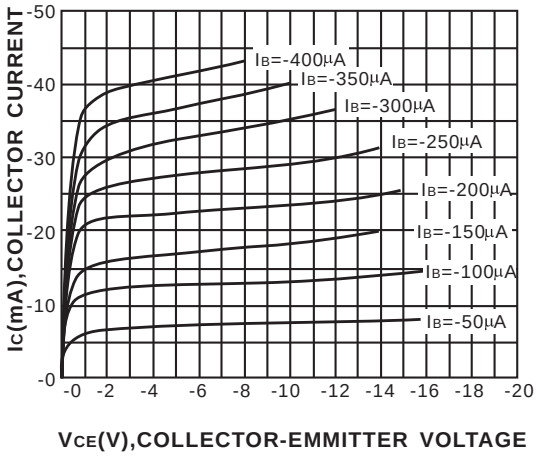
*Total Device Dissipation:FR=1X0.75X0.062 in Board Derate 25°C

#Pulse Test: Pulse Width 300uS Duty cycle 2%

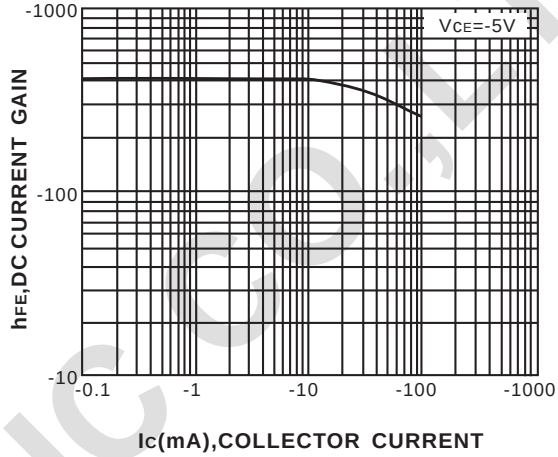
DEVICE MARKING:

MMBT9015LT1=M6

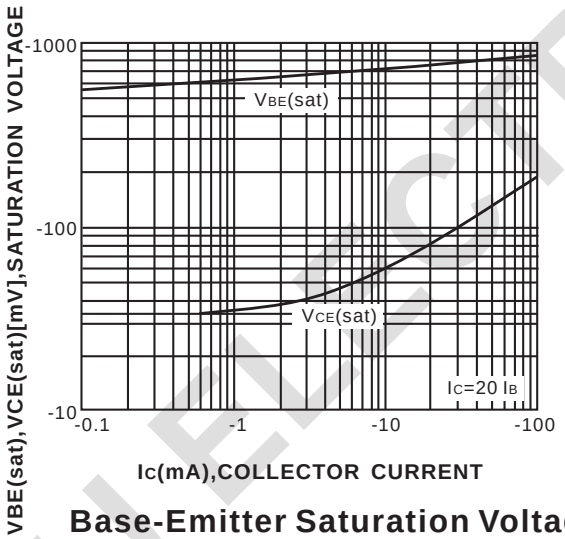
Typical Characteristics



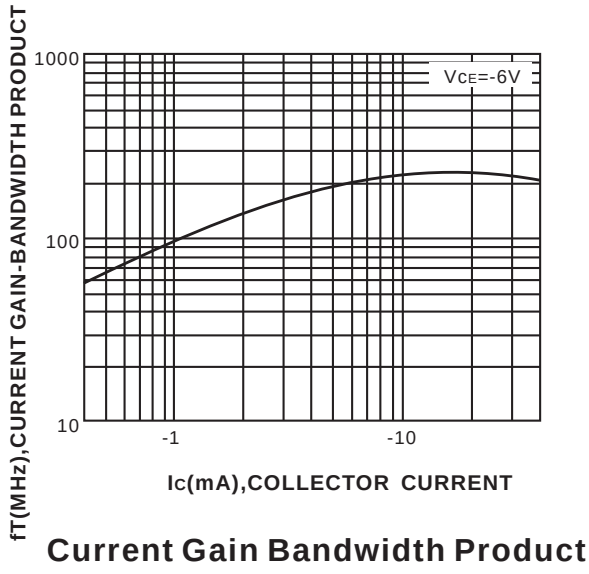
Static Characteristic



DC Current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product