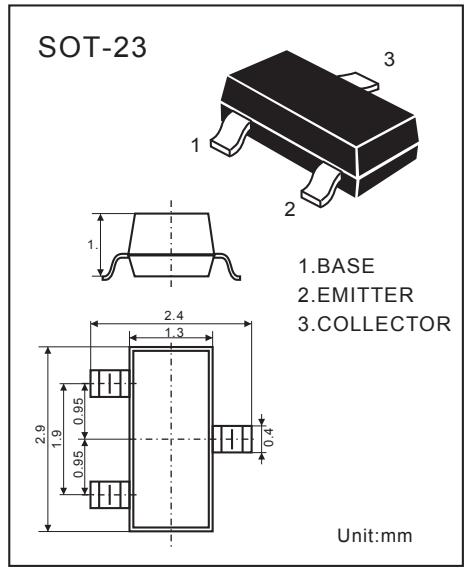
PNP EPITAXIAL SILICON TRANSISTOR

HIGH VOLTGE TRANDIDTOR

Complement to MMBTA42

- High Collector-Emitter Voltage:Vcbo=-300V
- Collector current:Ic=-500mA
- Collector Dissipation:Pc=225mW(Ta=25°C)



ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-300	V
Collector-Emitter Voltage	V_{CEO}	-300	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	Ic	-500	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)

Characteristic	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	BV_{CBO}	-300			V	I_C=-100μA I_E=0
Collector-Emitter Breakdown Voltage#	BV_{CEO}	-300			V	I_C=-1mA I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	-5			V	I_E=-100μA I_C=0
Collector Cutoff Current	I_{CBO}			-250	nA	V_{CB}=-200V, V_e=0
Collector Cutoff Current	I_{EBO}			-100	nA	V_{CB}=-3V, I_C=0
DC Current Gain	H_{FE}	40		250		V_{CE}=-10V, I_C=-10mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	I_C=-20mA, I_B=-2mA
Base-Emitter On Voltage	$V_{BE(sat)}$			-0.9	V	I_C=-20mA, I_B=-2mA
Collector-Base Capacitance	C_{ob}			6	PF	V_{CB}=-20V, I_E=0 f=100MHz
Current Gain-Bandwidth Product	f_T	50	100		MHz	V_{CE}=-20V I_C=-10mA f=100MHz

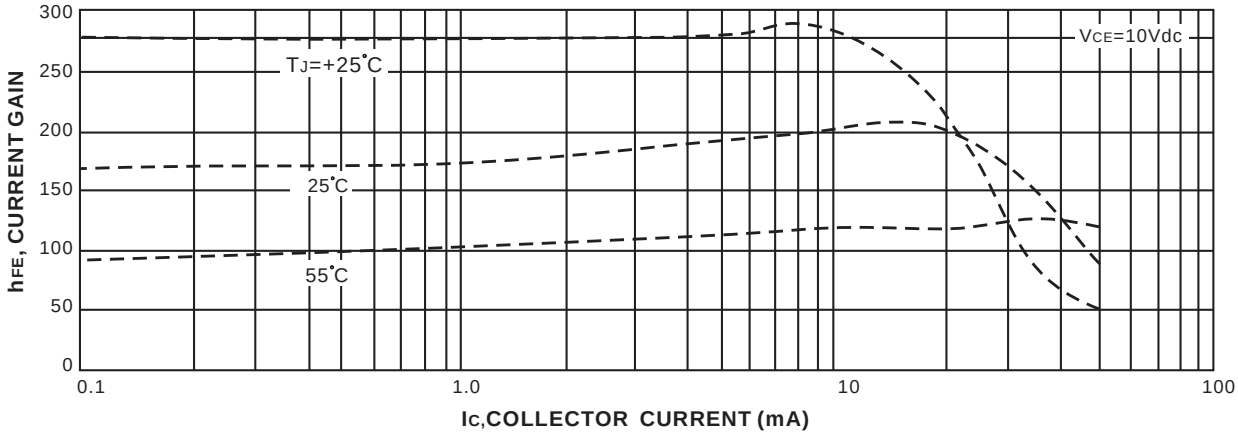
*Total Device Dissipation:FR=1X0.75X0.062 in Board Derate 25°C

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

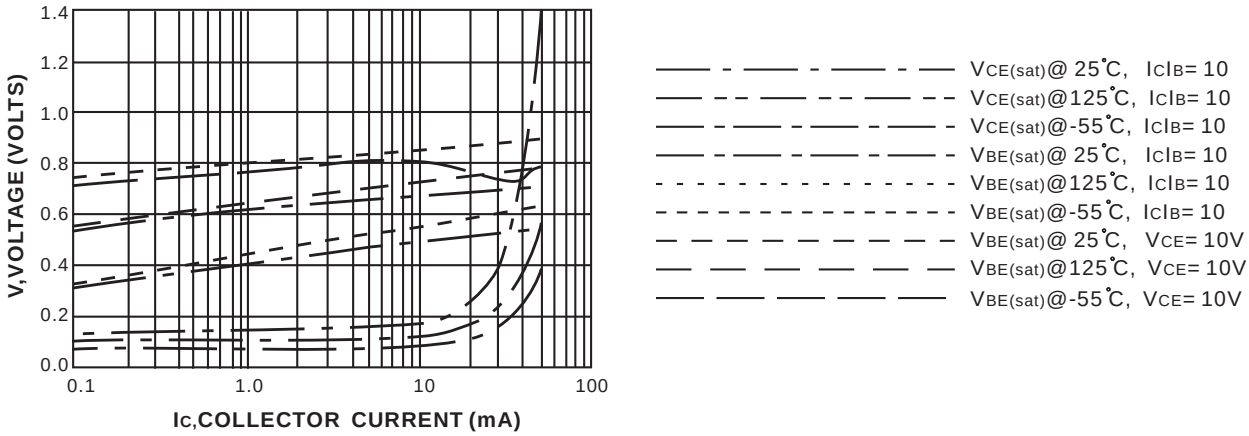
DEVICE MARKING:

MMBTA92=2D

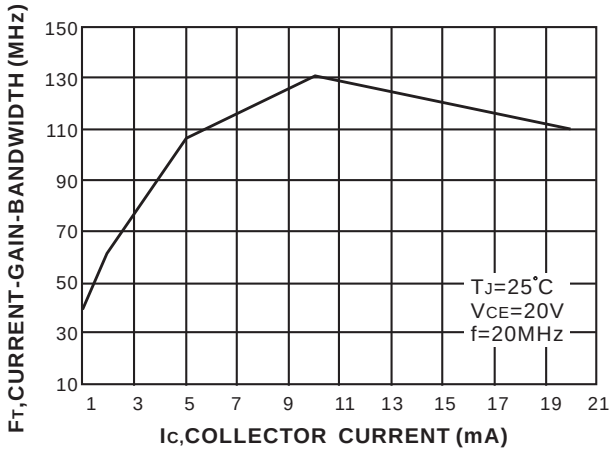
Typical Characteristics



DC Current Gain



"On" Voltages



Current-Gain-- Bandwidth