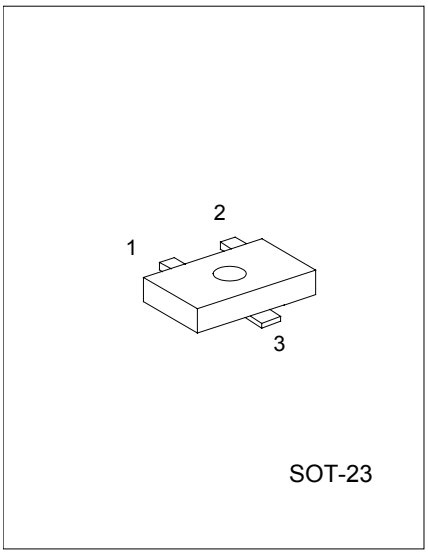
UTC MMBT9012 PNP EPITAXIAL SILICON TRANSISTOR

1W OUTPUT AMPLIFIER OF POTABLE RADIOS IN CLASS B PUSH-PULL OPERATION

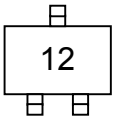


1: EMITTER 2: BASE 3: COLLECTOR

FEATURES

*High total power dissipation. (625mW)
*High collector current. (-500mA)
*Excellent hFE linearity
*Complementary to UTC MMBT9013

MARKING



ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	Ic	-500	mA
Collector dissipation	Pc	225	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

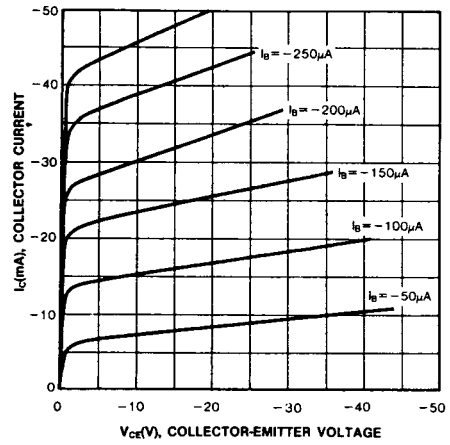
ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV_{CBO}	Ic=-100μA,I_E=0	-40			V
Collector-emitter breakdown voltage	BV_{CEO}	Ic=-1mA,I_B=0	-20			V
Emitter-base breakdown voltage	BV_{EBO}	I_E=-100μA, Ic=0	-5			V
Collector cutoff current	I_{CBO}	V_{CB}=-25V,I_E=0			-100	nA
Emitter cutoff current	I_{EBO}	V_{EB}=-3V,I_C=0			-100	nA
DC current gain	hFE1	V_{CE}=-1V,Ic=-50mA	64	120	300	
	hFE2	V_{CE}=-1V,Ic=-500mA	40	90		
Collector-emitter saturation voltage	V_{CE}(sat)	Ic=-500mA,I_B=-50mA		-0.18	-0.6	V
Base-emitter saturation voltage	V_{BE}(sat)	Ic=-500mA,I_B=-50mA		-0.95	-1.2	V
Base-emitter on voltage	V_{BE}(on)	V_{CE}=-1V,Ic=-10mA	-0.6	-0.67	-0.7	V

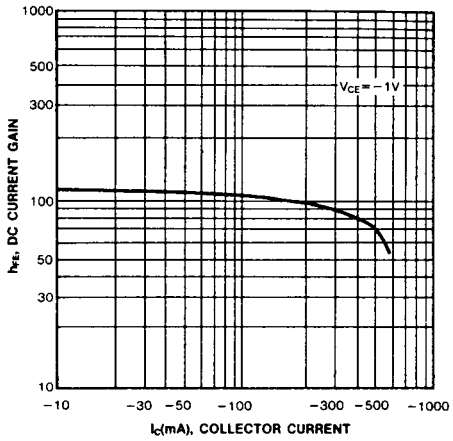
CLASSIFICATION OF hFE1

RANK	D	E	F	G	H	I
RANGE	64-91	78-112	96-135	112-166	144-202	190-300

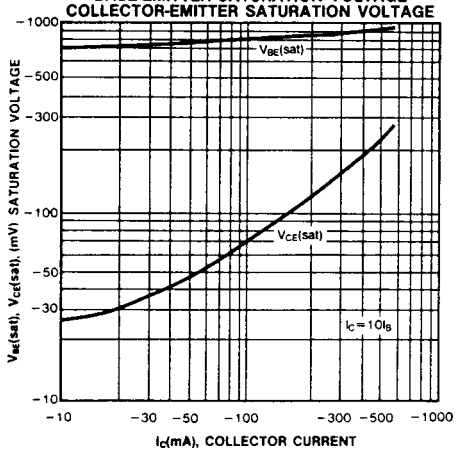
STATIC CHARACTERISTIC



DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT