

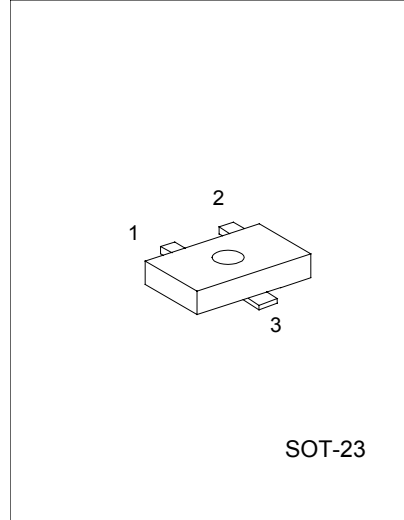
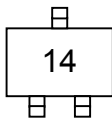
UTC MMBT9014 NPN EPITAXIAL SILICON TRANSISTOR

PRE-AMPLIFIER, LOW LEVEL &
LOW NOISE

FEATURES

- *High total power dissipation. (450mW)
- *Excellent hFE linearity.
- *Complementary to UTC MMBT9015

MARKING



SOT-23

1: EMITTER 2: BASE 3: COLLECTOR

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CEO}	45	V
Emitter-base voltage	V _{EB0}	5	V
Collector current	I _c	100	mA
Collector dissipation	P _c	225	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

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

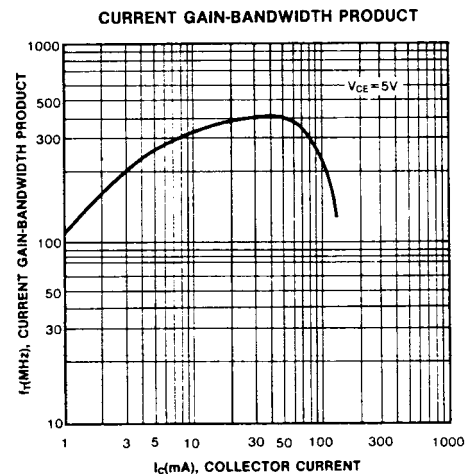
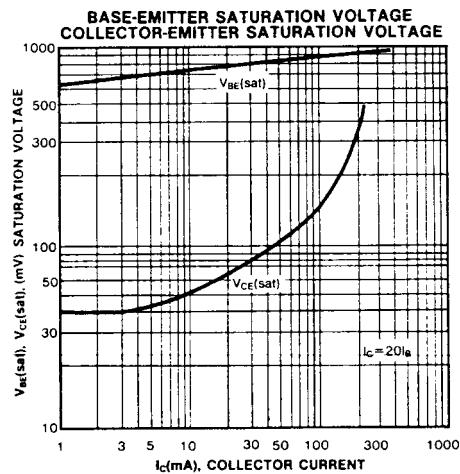
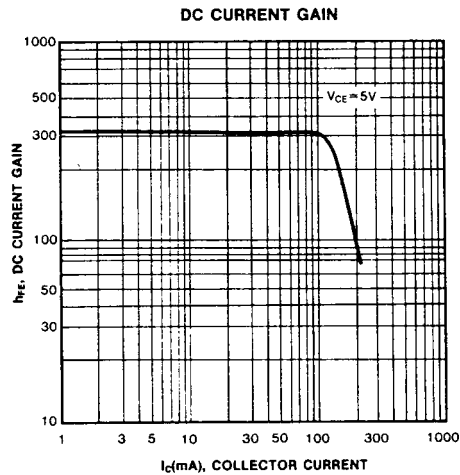
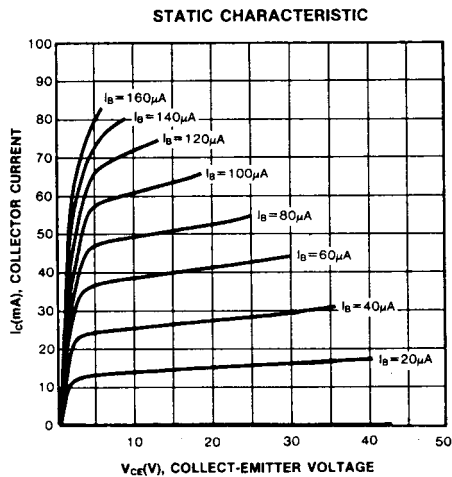
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV _{CB0}	I _c =100μA, I _E =0	50			V
Collector-emitter breakdown voltage	BV _{CEO}	I _c =1mA, I _B =0	45			V
Emitter-base breakdown voltage	BV _{EB0}	I _E =100μA, I _c =0	5			V
Collector cutoff current	I _{CB0}	V _{CB} =50V, I _E =0			50	nA
Emitter cutoff current	I _{EB0}	V _{EB} =5V, I _c =0			100	nA
DC current gain	hFE	V _{CE} =5V, I _c =1mA	60	280	1000	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =100mA, I _B =5mA		0.14	0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c =100mA, I _B =5mA		0.84	1.0	V
Base-emitter on voltage	V _{BE(on)}	V _{CE} =5V, I _c =2mA	0.58	0.63	0.7	V
Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		2.2	3.5	pF
Current gain-Bandwidth Product	f _T	V _{CE} =5V, I _c =10mA	150	270		MHz
Noise Figure	NF	V _{CE} =5V, I _c =0.2mA f=1KHz, R _s =2KΩ		0.9	10	dB

UTC UNISONIC TECHNOLOGIES CO., LTD. 1

UTC MMBT9014 NPN EPITAXIAL SILICON TRANSISTOR

CLASSIFICATION OF hFE

RANK	A	B	C	D
RANGE	60-150	100-300	200-600	400-1000



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