

UTC2SA1020

PNP EPITAXIAL SILICON TRANSISTOR

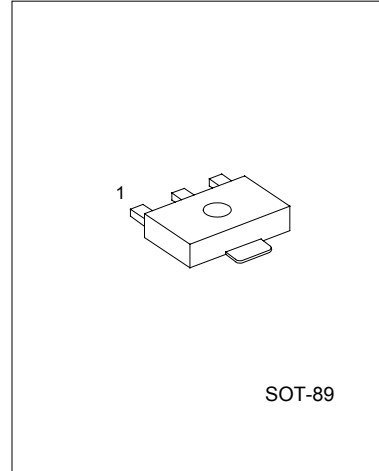
SILICON PNP EPITAXIAL TRANSISTOR

DESCRIPTION

The UTC 2SA1020 is designed for power amplifier and power switching applications.

FEATURES

- *Low collector saturation voltage:
VCE(sat)=-0.5V(max.) (IC=-1A)
- *High speed switching time: tstg=1.0μs(Typ.)
- *Complement to UTC 2SC2655



SOT-89

1:EMITTER 2:COLLECTOR 3:BASE

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CB0}	-50	V
Collector-Emitter Voltage	V _{CEO}	-50	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _c	-2	A
Collector Power Dissipation	P _c	0.5	W
Collector Power Dissipation	P _c *	1	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

* : Mounted on ceramic substrate(250mm² × 0.8t)

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Collector cut-off current	I _{CB0}	V _{CB} =-50V, I _E =0			-1.0	μA	
Emitter cut-off current	I _{EB0}	V _{EB} =-5V, I _C =0			-1.0	μA	
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _c =-10mA, I _B =0	-50			V	
DC Current Gain	h _{FE1}	V _{CE} =-2V, I _C =-0.5A	70		240		
	h _{FE2}	V _{CE} =-2V, I _C =-1.5A	40				
Collector to emitter saturation voltage	V _{CE(sat)}	I _c =-1A, I _B =-0.05A			-0.5	V	
Base to emitter saturation voltage	V _{BE(sat)}	I _c =-1A, I _B =-0.05A			-1.2	V	
Transition frequency	f _T	V _{CE} =-2V, I _C =-0.5A		100		MHz	
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		40		pF	
Switching time	Turn-on time			0.1		μs	
	Storage time		tstg		1.0		μs
	Fall time		tf		0.1		μs

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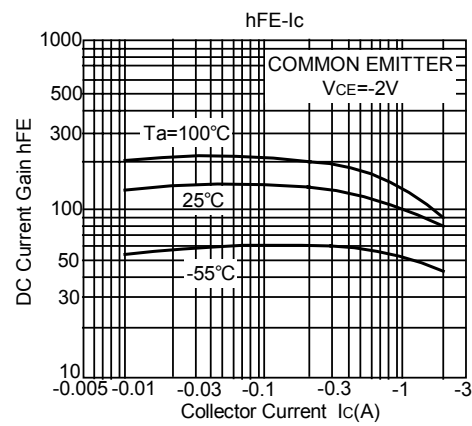
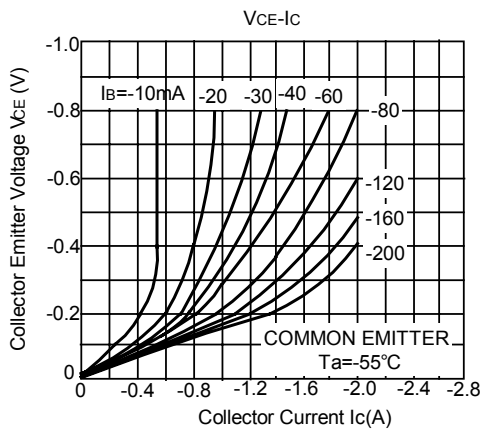
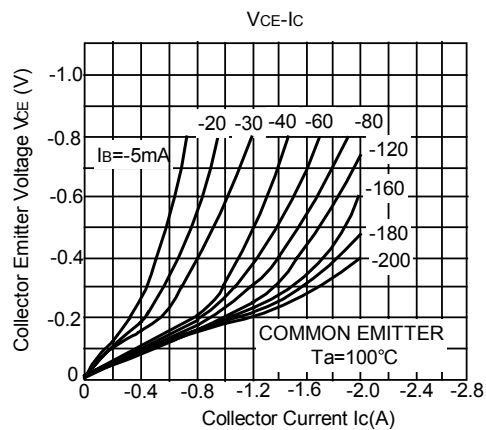
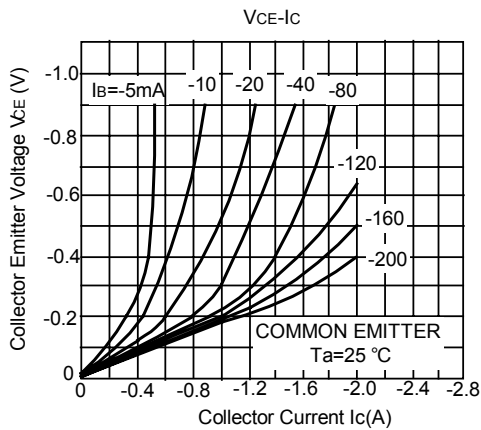
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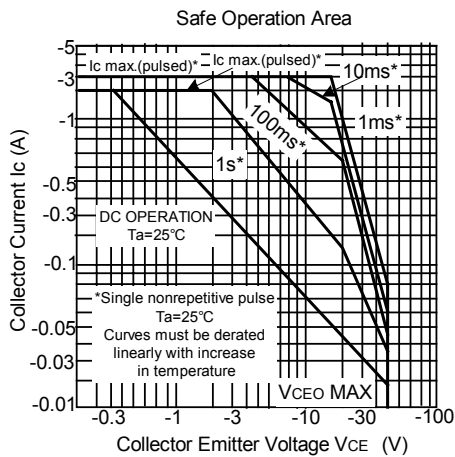
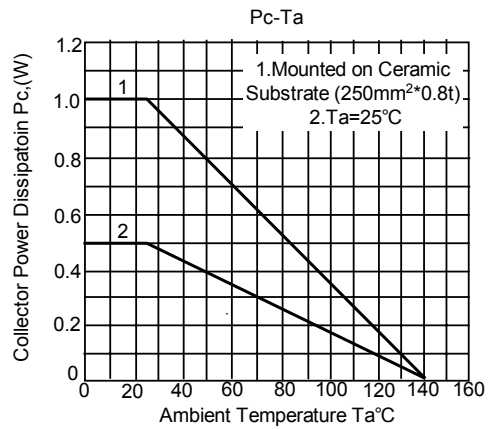
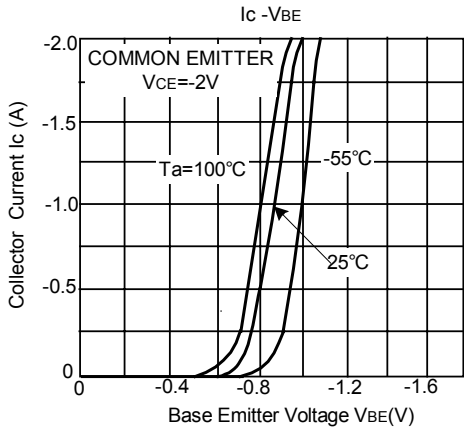
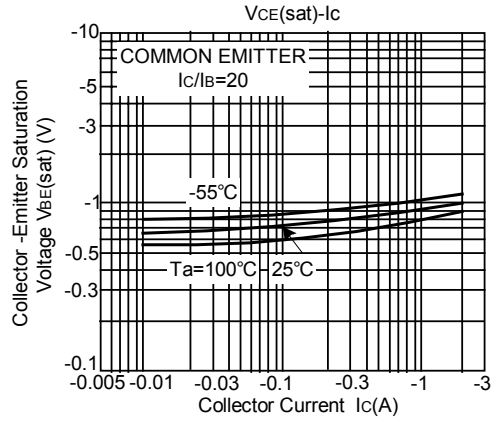
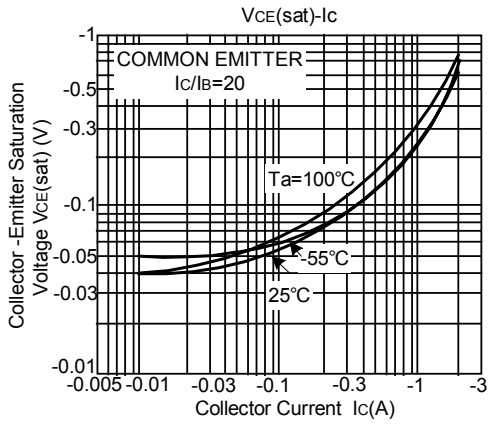
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CLASSIFICATION OF h_{FE1}

RANK	O	Y
RANGE	70 - 140	120 - 240

TYPICAL PERFORMANCE CHARACTERISTICS





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