

UTC2SD879

NPN EPITAXIAL SILICON TRANSISTOR

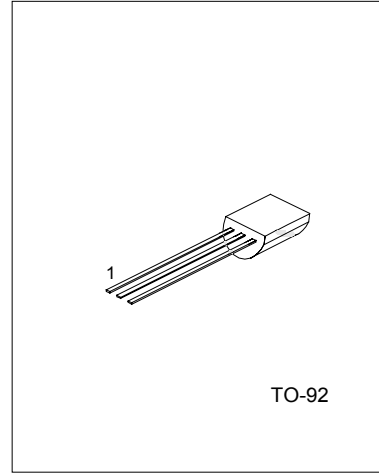
1.5V, 3V STROBE APPLICATIONS

DESCRIPTION

The UTC 2SD879 is a NPN epitaxial silicon transistor, designed for 1.5V and 3V strobe applications.

FEATURES

- *In applications where two NiCd batteries are used to provide 2.4V, two 2SD879s are used.
- *The charge time is approximately 1 second faster than that of germanium transistors.
- *Less power dissipation because of low Collector-to-Emitter Voltage $V_{CE(sat)}$, permitting more flashes of light to be emitted.
- *Large current capacity and highly resistant to break-down.
- *Excellent linearity of hFE in the region from low current to high current.



1:EMITTER 2:COLLECTOR 3:BASE

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

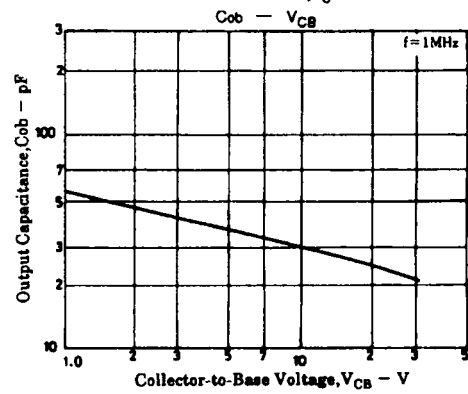
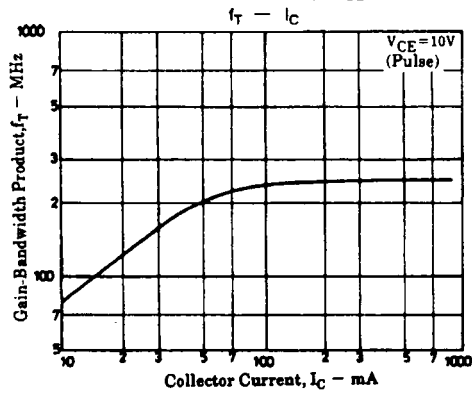
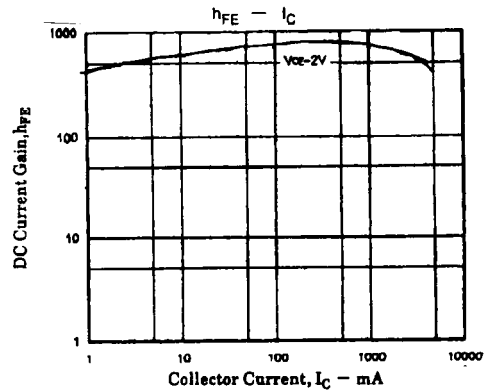
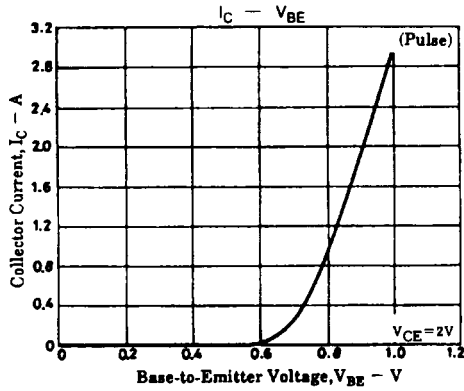
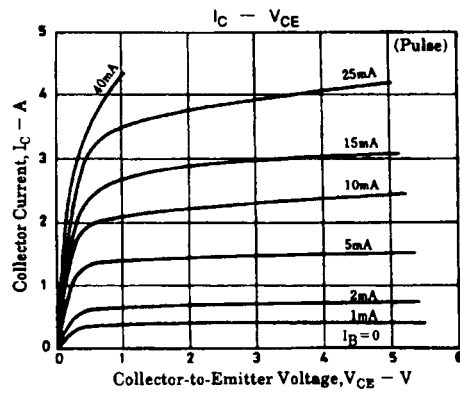
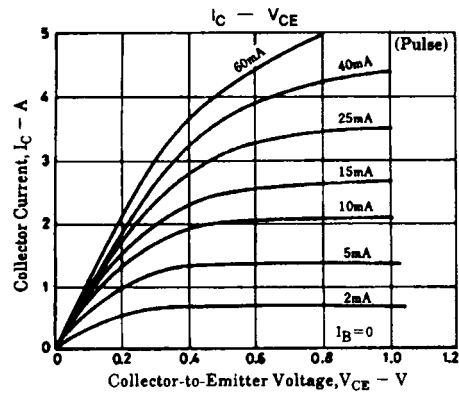
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	VCBO	30	V
Collector-Emitter Voltage	VCEX	20	V
Collector-Emitter Voltage	VCEO	10	V
Emitter-Base Voltage	VEBO	6	V
Collector Dissipation	P _D	1	W
Collector Current(DC)	I _c	3	A
Collector Current(PULSE)	I _{cp}	5	A
Junction Temperature	T _J	150	°C
Storage Temperature	TSTG	-55 ~ +150	°C

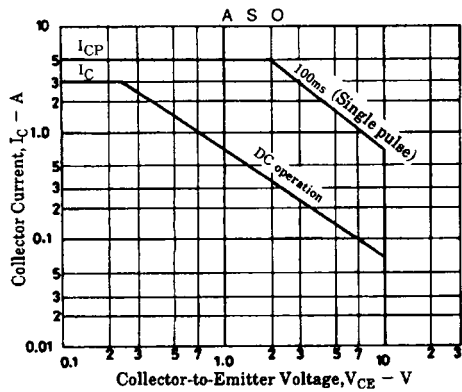
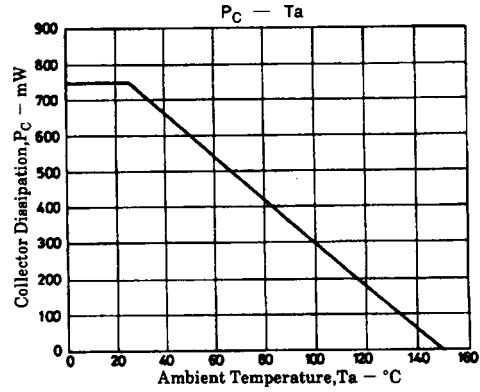
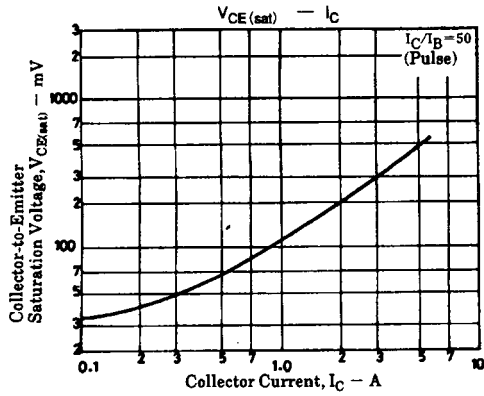
Note: PULSE CONDITION -> 100 ms single pulse

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Voltage	VCBO	I _c =10uA, I _E =0	30			V
Collector-Emitter Voltage	VCEX	I _c =1mA, V _{BE} =3V	20			V
Collector-Emitter Voltage	VCEO	I _c =1mA, R _{BE} =∞	10			V
Emitter-Base Voltage	VEBO	I _E =10uA, I _c =0	6			V
Base-Emitter Voltage	V _{BE}	V _{CE} =-1V, I _c =-2A		0.83	1.5	V
Collector Cut-Off Current	I _{CBO}	V _{CB} =20V, I _E =0			1	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =4V, I _c =0			1	μA
DC Current Gain	hFE	V _{CE} =2V, I _c =3A (pulse)	140	210	400	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c =3A, I _B =60mA (pulse)		0.3	0.4	V
Current Gain Bandwidth Product	f _T	V _{CE} =10V, I _c =50mA		200		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		30		pF

Pulse: 1mS





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