

UTC 2SC4027 NPN EPITAXIAL SILICON TRANSISTOR

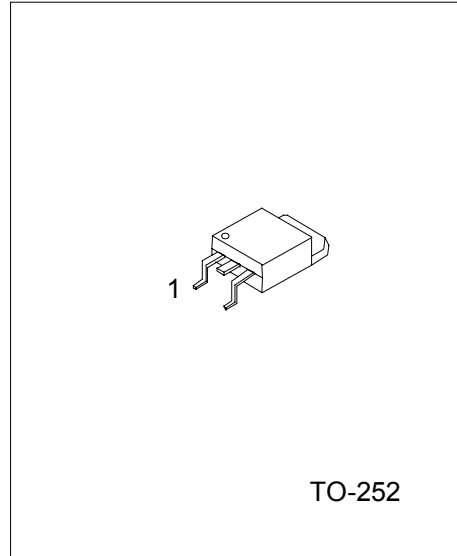
HIGH-VOLTAGE SWITCHING APPLICATIONS

FEATURES

- *High voltage and large current capacity.
- *Fast switching time.

APPLICATION

- *Converters, inverters, color TV audio output.
- *Complementary to 2SA1522.



1:BASE 2: COLLECTOR 3: EMITTER

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V _{CB0}	180	V
Collector to Emitter Voltage	V _{CEO}	160	V
Emitter to Base Voltage	V _{EBO}	6	V
Collector Current	I _c	1.5	A
Collector Current (Pulse)	I _{cp}	2.5	A
Collector Dissipation	P _c	1	W
	T _c =25°C	15	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 ~+150	°C

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

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector to Base Breakdown Voltage	V _{(BR)CBO}	I _c =10A, I _E =0	180			V
Collector to Emitter Breakdown Voltage	V _{(BR)CEO}	I _c =1mA, R _{BE} =∞	160			V
Emitter to Base Breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _c =0	6			V
Collector Cutoff Current	I _{CBO}	V _{CB} =120V, I _E =0			1.0	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _c =0			1.0	μA
DC Current Gain	h _{FE1} h _{FE2}	V _{CE} =5V, I _c =100mA V _{CE} =5V, I _c =10mA	100 80		400	
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _c =500mA, I _B =50mA		0.13	0.45	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _c =500mA, I _B =50mA		0.85	1.2	V
Gain-Bandwidth Product	f _r	V _{CE} =10V, I _c =50mA		120		MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		12		pF
Turn-On Time	t _{on}	See specified Test Circuit		60		μs
Storage Time	t _{stg}			1.2		μs
Fall Time	t _f			80		μs

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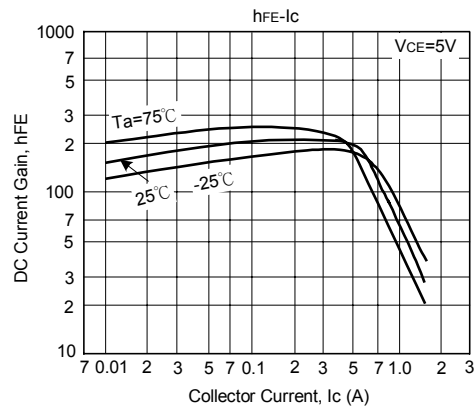
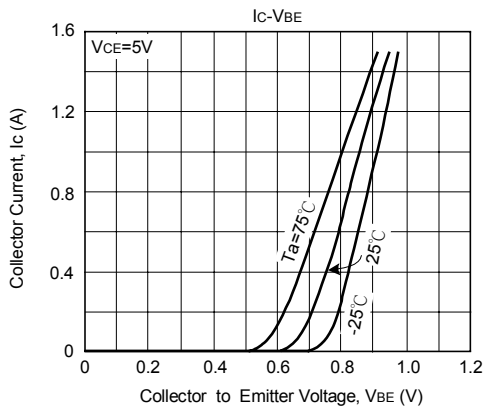
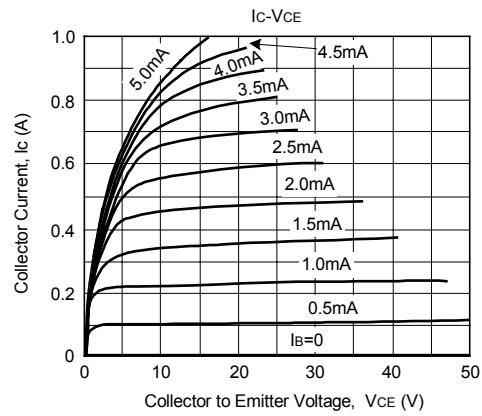
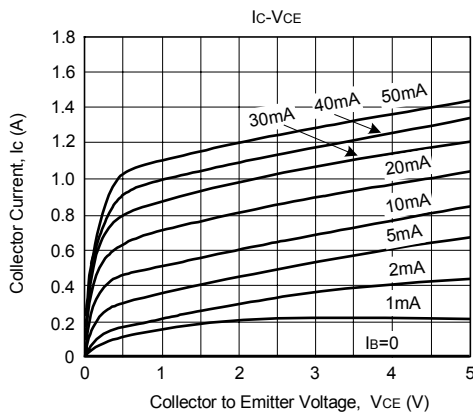
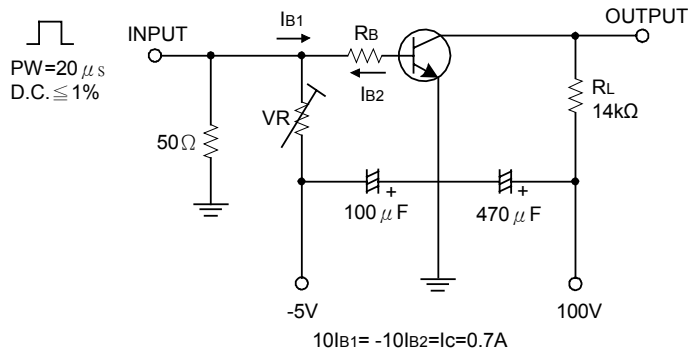
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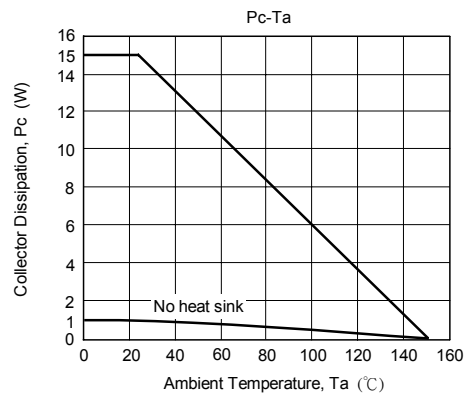
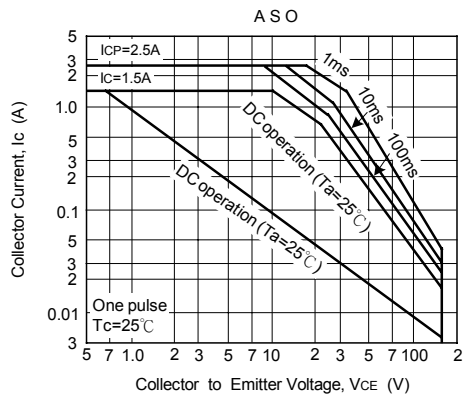
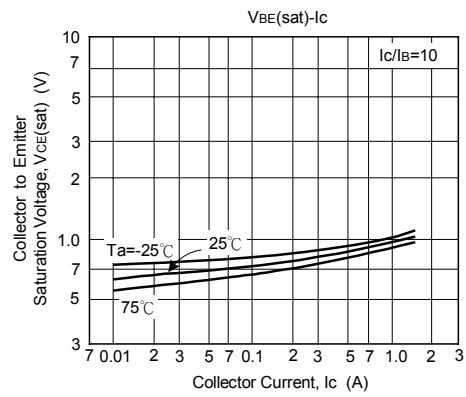
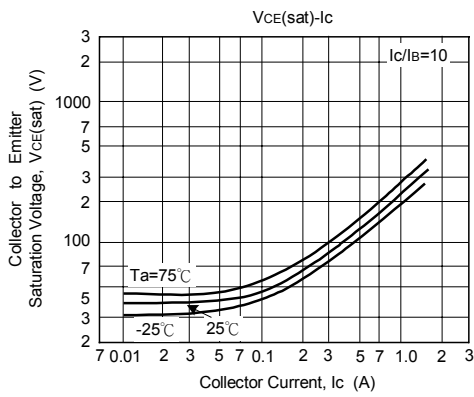
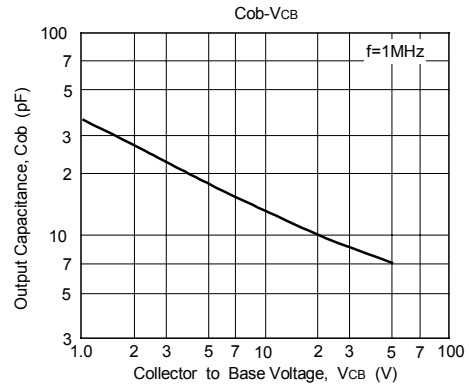
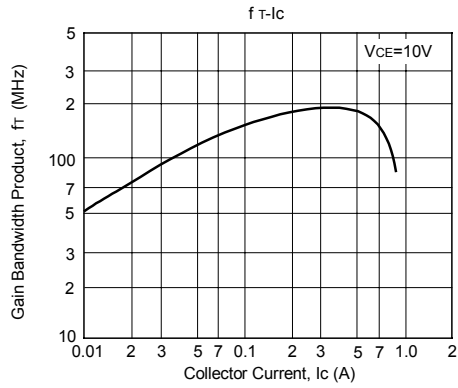
CLASSIFICATION OF h_{FE1}

RANK	R	S	T
h_{FE}	100~200	140~280	200~400

SWITCHING TIME TEST CIRCUIT



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