

UTC 8050S NPN EPITAXIAL SILICON TRANSISTOR

LOW VOLTAGE HIGH CURRENT SMALL SIGNAL NPN TRANSISTOR

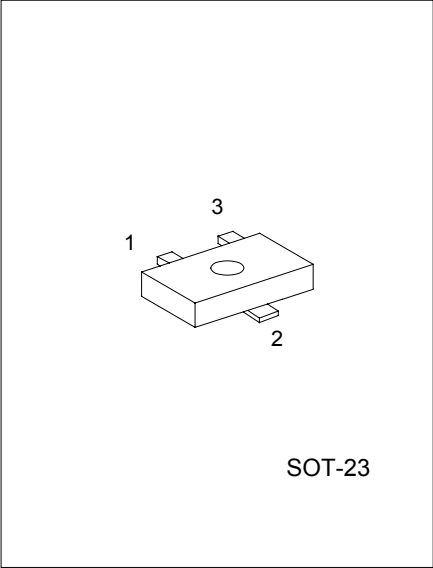
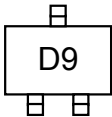
DESCRIPTION

The UTC 8050S is a low voltage high current small signal NPN transistor, designed for Class B push-pull audio amplifier and general purpose applications.

FEATURES

- *Collector current up to 700mA
- *Collector-Emitter voltage up to 20 V
- *Complementary to UTC 8550S

MARKING



1:EMITTER 2:COLLECTOR 3:BASE

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

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CEO}	20	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Dissipation(Ta=25°C)	P _c	1	W
Collector Current	I _c	700	mA
Junction Temperature	T _j	150	°C
Storage Temperature	T _{STG}	-65 ~ +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	30			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _c =1mA, I _B =0	20			V
Emitter-Base Breakdown Voltage	BV _{EB0}	I _E =100μA, I _c =0	5			V
Collector Cut-Off Current	I _{CB0}	V _{CB} =30V, I _E =0			1	μA
Emitter Cut-Off Current	I _{EB0}	V _{EB} =5V, I _c =0			100	nA
DC Current Gain(note)	hFE1	V _{CE} =1V, I _c =1mA	100	110	400	
	hFE2	V _{CE} =1V, I _c =150 mA	120			
	hFE3	V _{CE} =1V, I _c =500mA	40			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c =500mA, I _B =50mA			0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _c =500mA, I _B =50mA			1.2	V
Base-Emitter Saturation Voltage	V _{BE}	V _{CE} =1V, I _c =10mA			1.0	V

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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Current Gain Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$	100			MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0$ $f=1MHz$		9.0		pF

CLASSIFICATION OF h_{FE2}

RANK	C	D	E
RANGE	120-200	160-300	280-400

TYPICAL PERFORMANCE CHARACTERISTICS

