

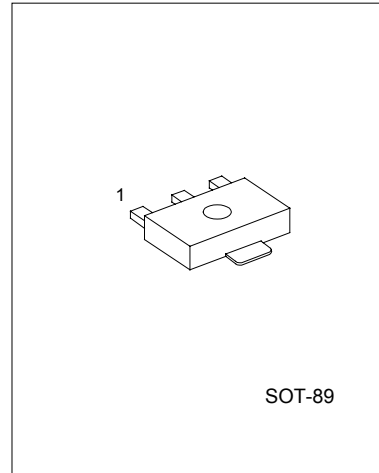
POWER TRANSISTOR

DESCRIPTION

The UTC 2SB798 is designed for audio frequency power amplifier applications, especially in Hybrid Integrated Circuits.

FEATURES

- \*Low Collector Saturation Voltage:  
 $V_{CE(sat)} < -0.4V$  ( $I_c = -1.0A, I_b = -100mA$ )
- \*Excellent DC Current Gain Linearity :  
 $hFE = 100$  Typ. ( $V_{CE} = -1.0V, I_c = -1.0A$ )



SOT-89

1:EMITTER 2:COLLECTOR 3:BASE

ABSOLUTE MAXIMUM RATINGS ( Ta=25°C )

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-30	V
Collector-Emitter Voltage	$V_{CEO}$	-25	V
Emitter-Base Voltage	$V_{EBO}$	-5.0	V
Collector Current	DC	-1.0	A
	Pulse(note 1)	-1.5	A
Collector Dissipation (note 2)	$P_c$	2	W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{STG}$	-55 ~ +150	°C

Note 1:  $PW \leq 10ms, Duty\ Cycle \leq 50\%$

Note 2: When mounted on a ceramic substrate of  $16cm^2 \times 0.7\ mm$ .

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

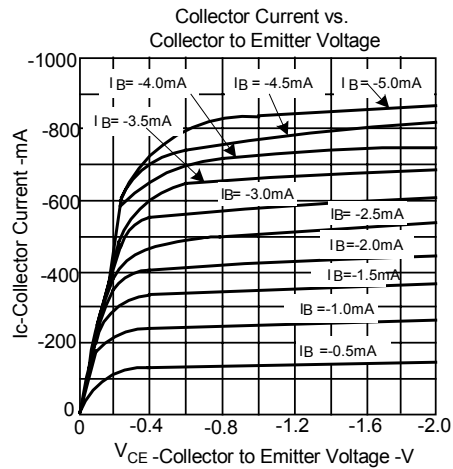
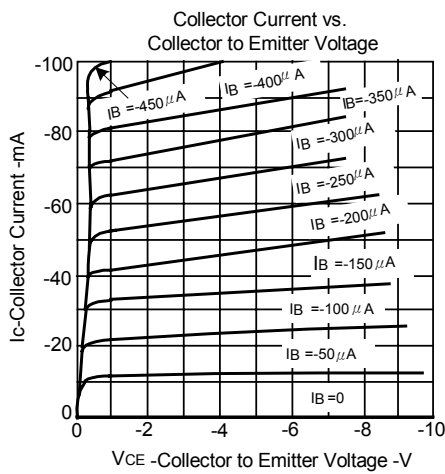
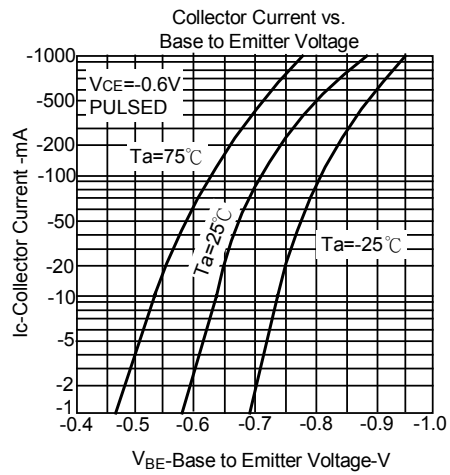
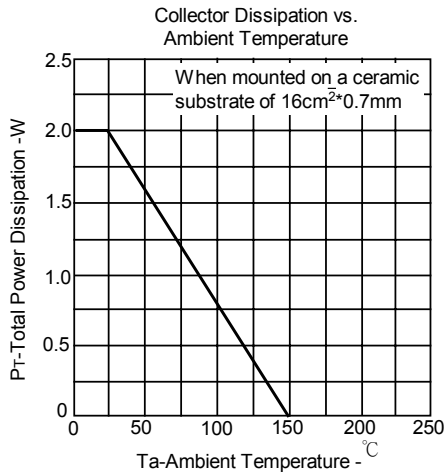
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$			-100	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -5.0V, I_c = 0$			-100	nA
DC Current Gain	$hFE1$	$V_{CE} = -1.0V, I_c = -100mA$	90	200	400	
DC Current Gain	$hFE2$	$V_{CE} = -1.0V, I_c = -1.0A$	50	100		
Base to Emitter Voltage	$V_{BE}$	$V_{CE} = -6.0V, I_c = -10mA$	-600	-640	-700	mV
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c = -1.0A, I_b = -0.10A$		-0.25	-0.40	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_c = -1.0A, I_b = -0.10A$		-1.0	-1.2	V
Gain Bandwidth Product	$f_T$	$V_{CE} = -6.0V, I_E = 10\ mA$		110		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = -6.0V, I_E = 0, f = 1MHz$		36		pF

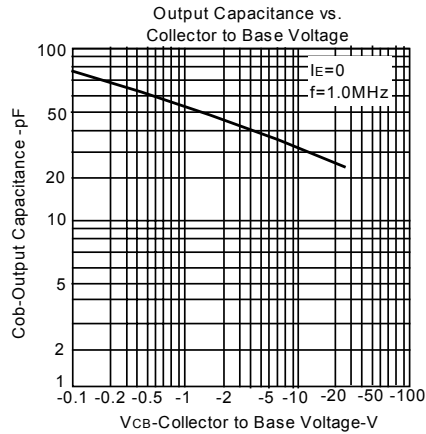
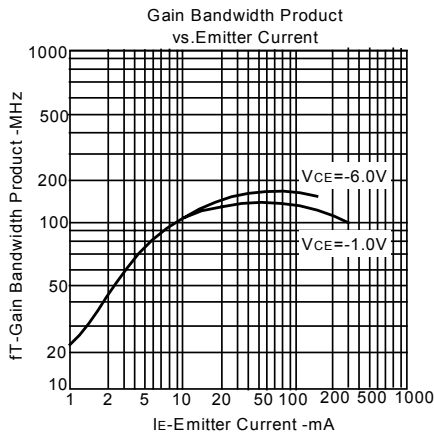
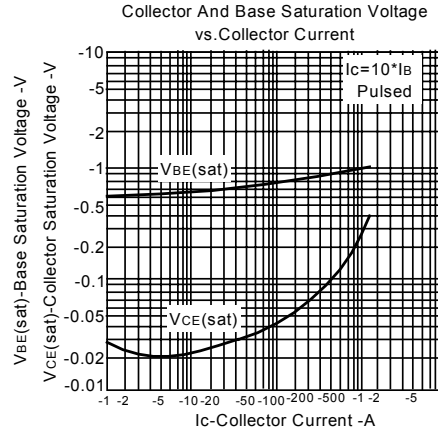
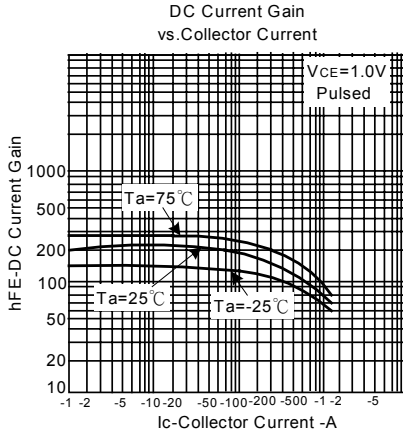
Note 3:  $PW \leq 350\ \mu s, Duty\ Cycle \leq 2\%$

CLASSIFICATION OF hFE1

MARKING	DM	DL	DK
hFE1	90-180	135-270	200-400

ELECTRICAL CHARACTERISTICS CURVES





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