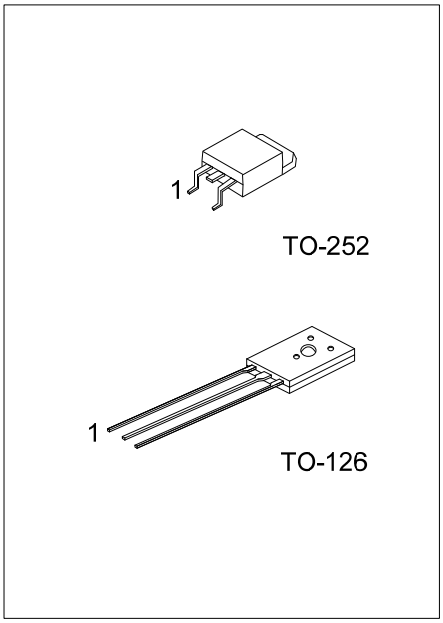
2SB776

PNP PLANAR TRANSISTOR

MEDIUM POWER LOW VOLTAGE TRANSISTOR



■ DESCRIPTION

The UTC 2SB776 is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

■ FEATURES

* High Current Output Up to 3A
* Low Saturation Voltage
* Complement to 2SD886

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
2SB776-x-T60-K	2SB776L-x-T60-K	2SB776G-x-T60-K	TO-126	E	C	B	Bulk
2SB776-x-TN3-R	2SB776L-x-TN3-R	2SB776G-x-TN3-R	TO-252	B	C	E	Tape Reel

2SB776G-x-T60-K
- (1)Packing Type
- (2)Package Type
- (3)Rank
- (4)Halogen Free

(1) K: Bulk, R: Tape Reel
(2) T60: TO-126, TN3: TO-252
(3) x: refer to Classification of h_{FE2}
(4) G: Halogen Free, L: Lead Free Plating
Blank: Pb/Sn

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-50	V
Collector-Emitter Voltage		V_{CEO}	-50	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-3	A
	PULSE		-7	A
Base Current		I_B	-0.6	A
Collector Dissipation (T_C=25°C)	TO-126	P_C	10	W
	TO-252		25	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	V_{CB}=-50V, I_E=0			-1000	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-3V, Ic=0			-1000	nA
DC Current Gain (Note)	h_{FE1}	V_{CE}=-2V, Ic=-20mA	100	200		
	h_{FE2}	V_{CE}=-2V, Ic=-1A	100	150	400	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	Ic=-2A, I_B=-0.2A		-0.3	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	Ic=-2A, I_B=-0.2A		-1.0	-2.0	V
Current Gain Bandwidth Product	f_T	V_{CE}=-5V, Ic=-0.1A		80		MHz
Output Capacitance	Cob	V_{CB}=-10V, I_E=0, f=1MHz		45		pF

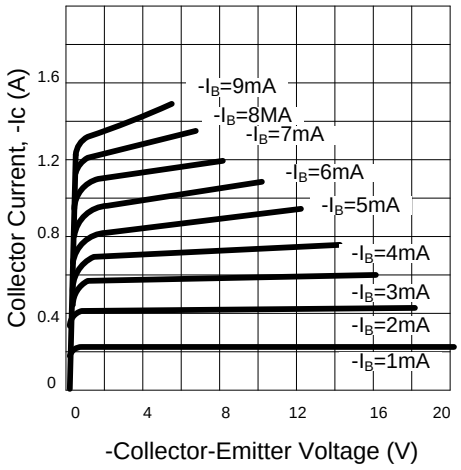
Note: Pulse test: PW<300μs, Duty Cycle<2%

■ CLASSIFICATION OF h_{FE2}

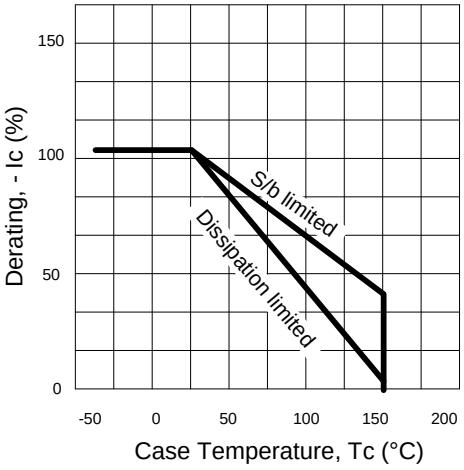
RANK	Q	P	E
RANGE	100-200	160-320	200-400

■ TYPICAL CHARACTERISTICS

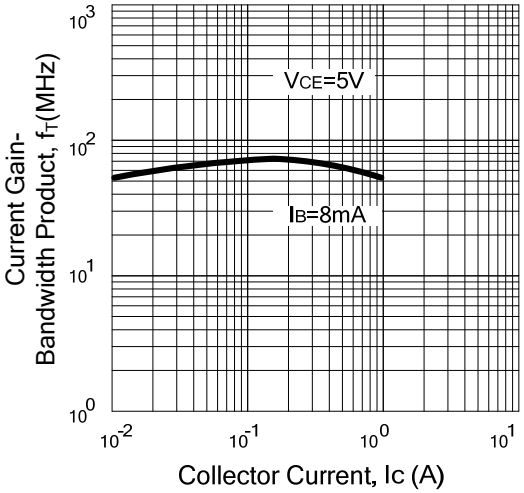
Static Characteristics



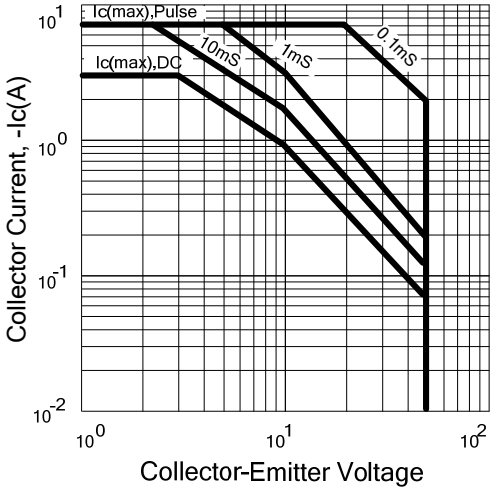
Derating Curve of Safe Operating Areas



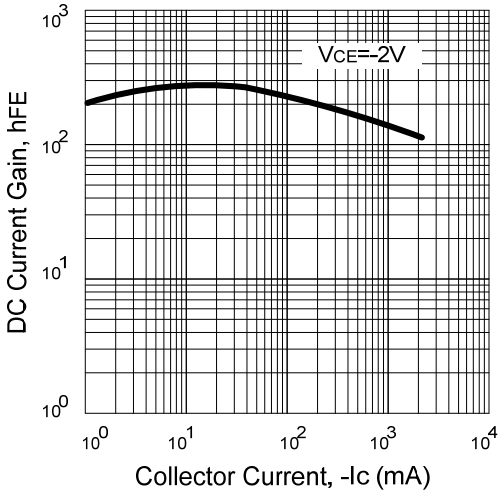
Current Gain-Bandwidth Product



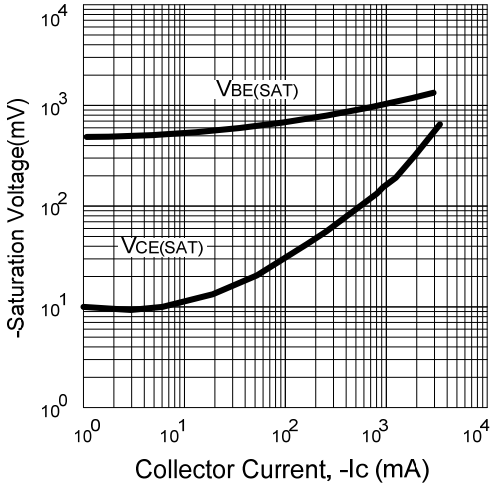
Safe Operating Area



DC Current Gain



Saturation Voltage



■ TYPICAL CHARACTERISTICS(Cont.)

Collector Output Capacitance