

2SA1036K 2SA1577

Transistor, PNP

Features

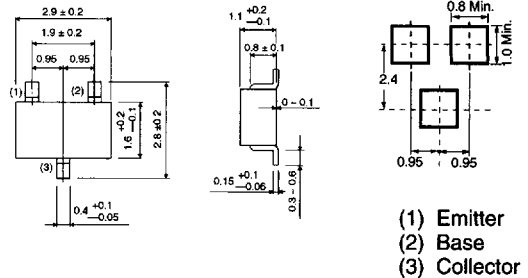
- available in SMT3 (SMT, SC-59) and UMT3 (UMT, SC-70) packages
- package marking: 2SA1036K and 2SA1577; H★, where ★ is h_{FE} code
- large collector current:
 $I_{C(max)} = -500 \text{ mA}$
- suitable for low-voltage operations because of its low saturation voltage
- complementary pair with 2SC2411K and 2SC4097

Applications

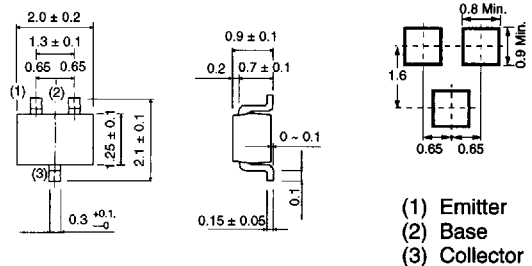
- medium power amplifier

Dimensions (Units : mm)

2SA1036K (SMT3)



2SA1577 (UMT3)



Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	V_{CBO}	-40	V	
Collector-to-emitter voltage	V_{CEO}	-32	V	
Emitter-to-base voltage	V_{EBO}	-5	V	
Collector current	I_C	-500	mA	Do not exceed $P_{C(max)}$
Collector dissipation	P_C	200	mW	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$	

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-base breakdown voltage	BV_{CBO}	-40			V	$I_C = -100 \mu\text{A}$
Collector-to-emitter breakdown voltage	BV_{CEO}	-32			V	$I_C = -1 \text{ mA}$
Emitter-to-base breakdown voltage	BV_{EBO}	-5			V	$I_E = -100 \mu\text{A}$
Collector cutoff current	I_{CBO}			-1	μA	$V_{CB} = -20 \text{ V}$
Emitter cutoff current	I_{EBO}			-1	μA	$V_{EB} = -4 \text{ V}$
DC current gain	h_{FE}	82		390		$V_{CE} = -3 \text{ V}, I_C = -10 \text{ mA}$
Collector-to-emitter saturation voltage	$V_{CE(sat)}$			-0.4	V	$I_C / I_B = -100 \text{ mA} / -10 \text{ mA}$
Transition frequency	f_T		200		MHz	$V_{CE} = -5 \text{ V}, I_E = 20 \text{ mA}, f = 100 \text{ MHz}$
Output capacitance	C_{ob}		7.0		pF	$V_{CB} = -10 \text{ V}, I_E = 0 \text{ mA}, f = 1 \text{ MHz}$

h_{FE} rankings

Item	P	Q	R
h_{FE}	82 ~ 180	120 ~ 270	180 ~ 390

Electrical characteristic curves

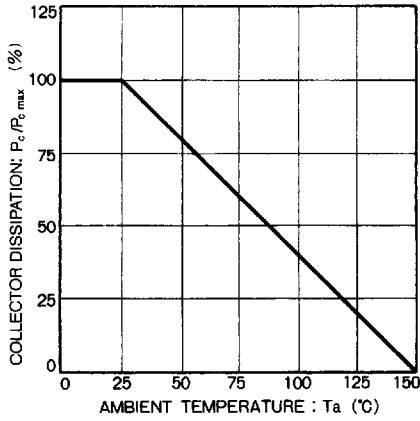


Figure 1

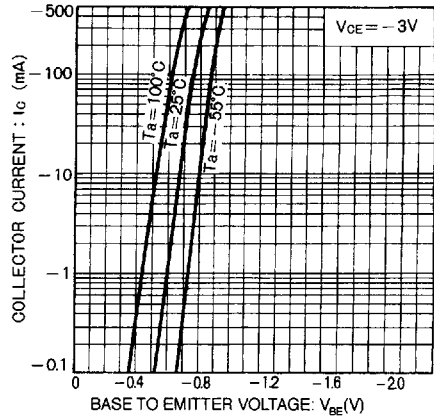


Figure 2

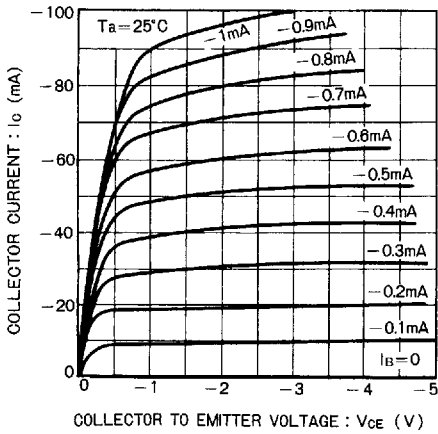


Figure 3

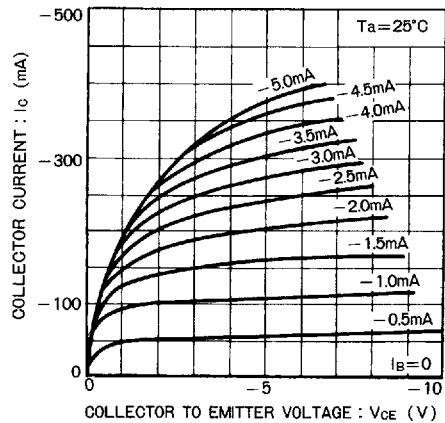


Figure 4

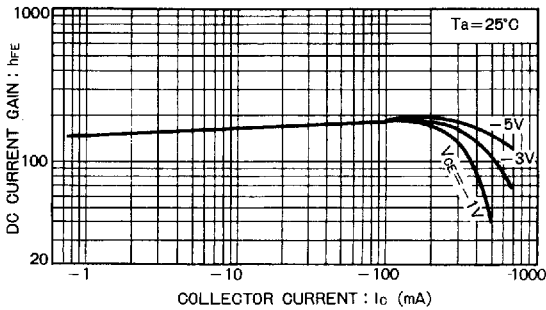


Figure 5

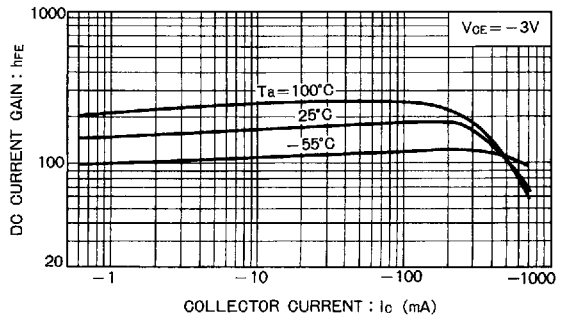


Figure 6

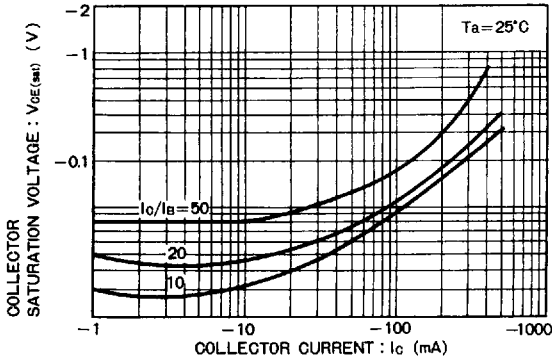


Figure 7

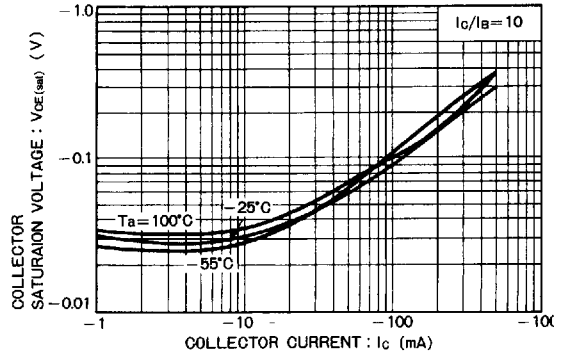


Figure 8

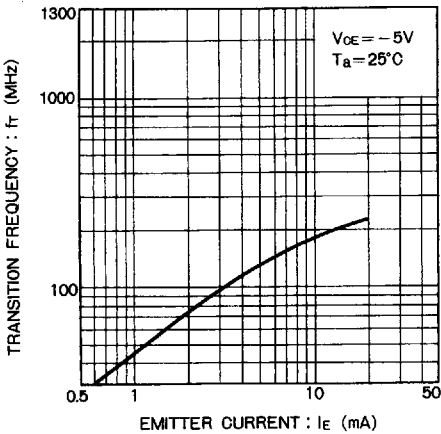


Figure 9

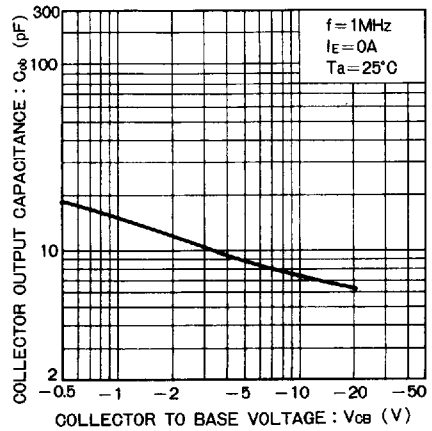


Figure 10

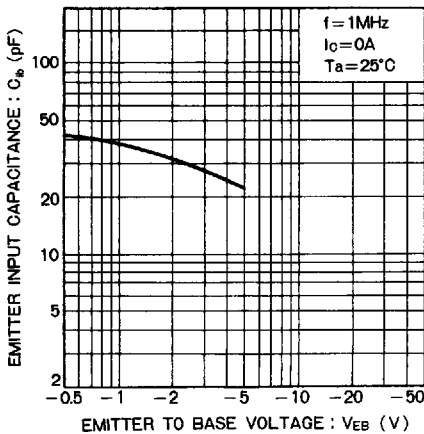


Figure 11

Ordering information

Package	Tape	
	T146	T106
Code		
Basic order quantity	3000	3000
2SA1036K	☆	
2SA1577		★

★ = Standard, ☆ = Semi-standard, * = Special order