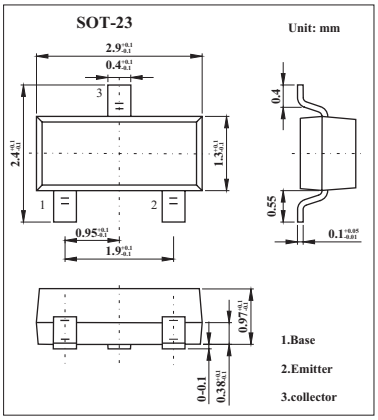
TY Semicondutor®

Product specification

2SA1607



■ Features

- Fast switching speed.
- High gain-bandwidth product.
- Low saturation voltage.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-150	mA
Collector current (pulse)	I_{CP}	-300	mA
Base current	I_B	-30	mA
Collector dissipation	P_C	200	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -30V, I_E=0			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = -4V, I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE} = -1V , I_C = -10mA	60		180	
Gain bandwidth product	f_T	V_{CE} = -10V , I_C = -10mA		400		MHz
Output capacitance	C_{ob}	V_{CB} = -10V , f = 1.0MHz		2.9		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -10mA , I_B = -1mA		-0.07	-0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -10mA , I_B = -1mA		-0.75	-1	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -10μA , I_E = 0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA , R_{BE} = ∞	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA , I_C = 0	-5			V
Delay time	t_d			14	20	ns
Rise time	t_r			11	20	ns
Storage time	t_{stg}			80	180	ns
Fall time	t_f			16	25	ns

■ h_{FE} Classification

Marking	YL	
Rank	3	4
hFE	60～120	90～180