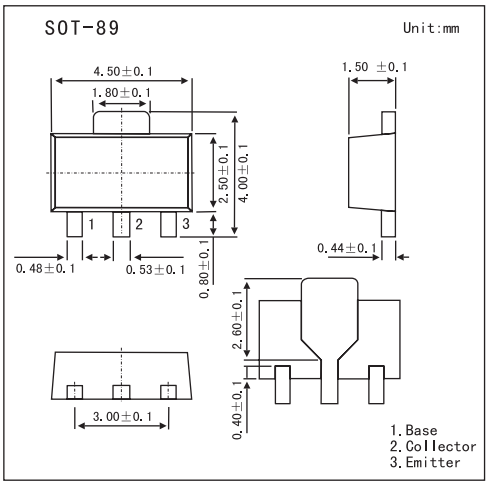
TY Semicondutor®

Product specification

2SA1724



■ Features

- High f_T (f_T = 1.5GHz typ).
- High Current (I_C = 300mA).
- Adoption of FBET process.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-3	V
Collector Current	I_C	-300	mA
Collector Current (Pulse)	I_{CP}	-600	mA
Collector Power Dissipation	P_C	500	mW
	P_C *	1300	
Jumction temperature	T_j	150	℃
Storage temperature Range	T_{stg}	-55 to +150	℃

* Mounted on ceramic board (250 mm^2 x 0.8 mm)

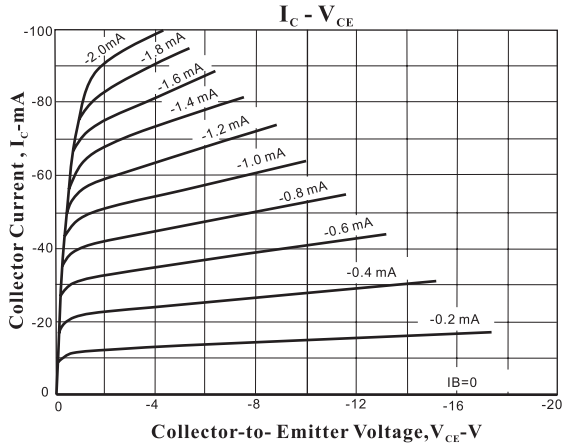
■ Electrical Characteristics Ta = 25℃

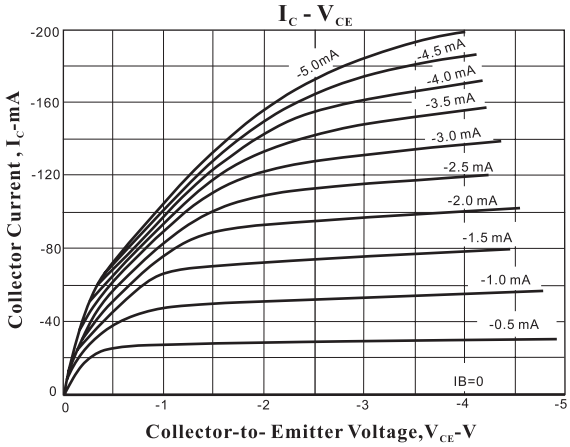
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	V_{CB} = -20V , I_E = 0			-0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -2V , I_C = 0			-0.1	μA
DC Current Gain	h_{FE}	V_{CE} = -5V , I_C = -50mA	15		100	
		V_{CE} = -5V , I_C = -300mA	5			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -100mA , I_B = -10mA		-0.4	-1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -100mA , I_B = -10mA		-0.9	-1.2	V
Transition Frequency	f_T	V_{CE} = -5V , I_C = -100mA		1.5		GHz
Collector Output Capacitance	C_{ob}	V_{CB} = -10V , I_E = 0 , f = 1MHz		4.9		pF
Reverse Transfer Capacitance	C_{re}	V_{CB} = -10V , I_E = 0 , f = 1MHz		4.4		pF

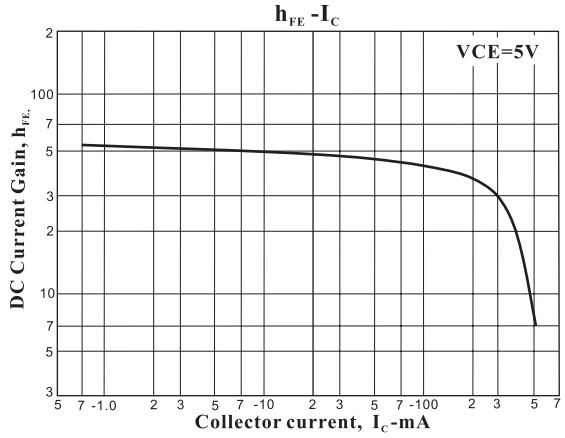
■ Marking

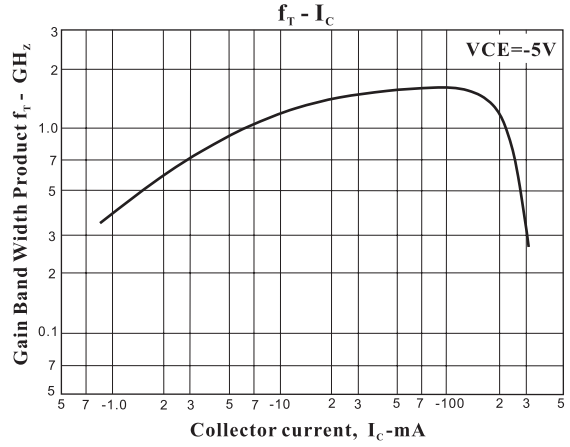
Marking	AJ

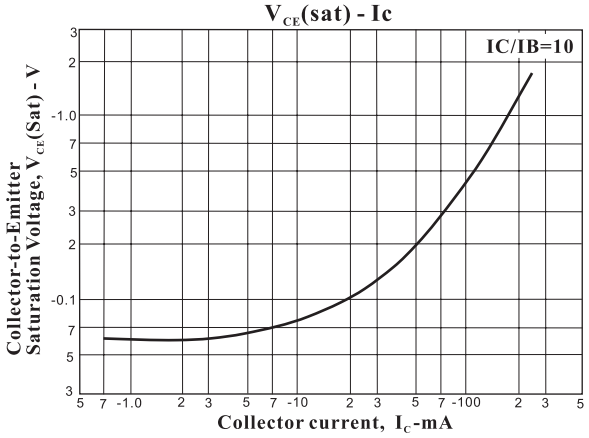
■ Electrical Characteristics Curves

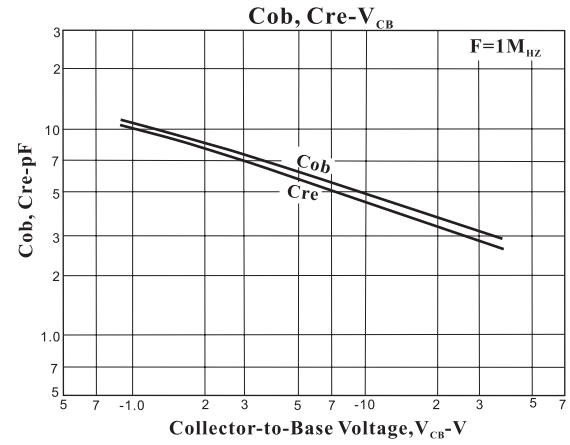












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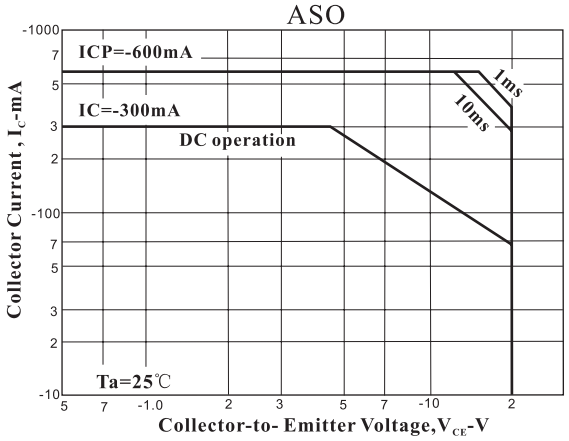
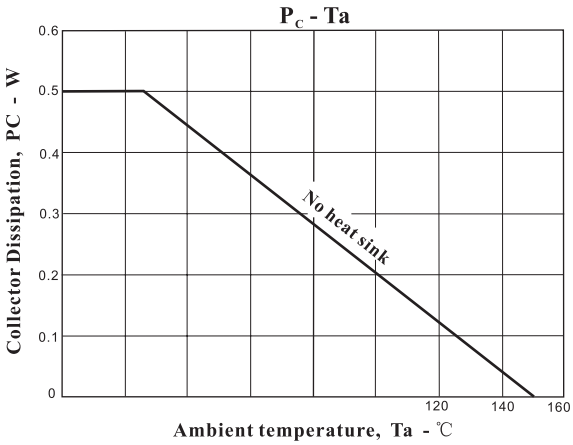
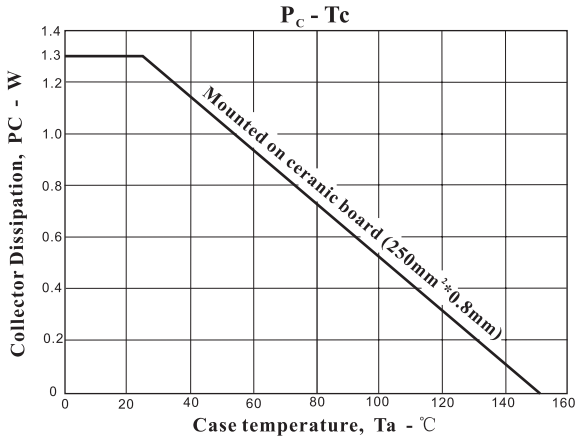

ASO
ICP=-600mA
IC=-300mA
DC operation
1ms
10ms
Ta=25℃
Collector Current , I_C-mA
Collector-to- Emitter Voltage,V_{CE}-V


P_C - Ta
No heat sink
Collector Dissipation, PC - W
Ambient temperature, Ta - ℃


P_C - Tc
Mounted on ceranic board (250mm²*0.8mm)
Collector Dissipation, PC - W
Case temperature, Ta - ℃