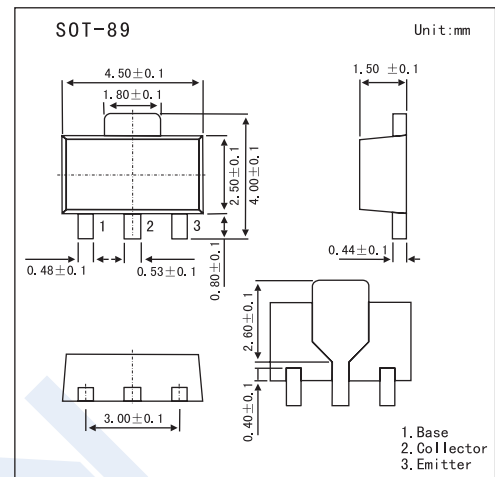


Video Output Driver Applications

2SA1724

■ Features

- High f_T ($f_T = 1.5\text{GHz typ.}$)
- High Current ($I_C = 300\text{mA}$).
- Adoption of FBET process.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-30	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EB0}	-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	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

* Mounted on ceramic board (250 mm² x 0.8 mm)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

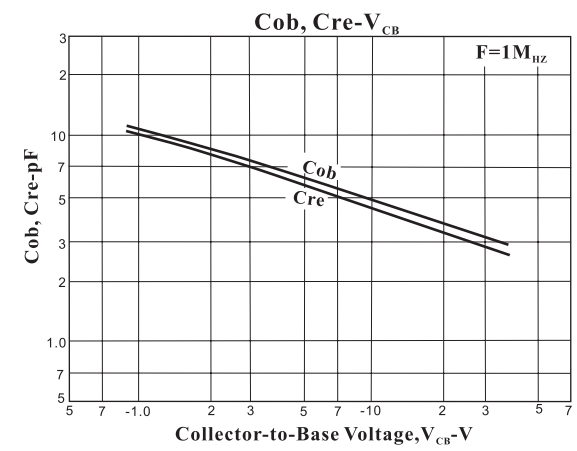
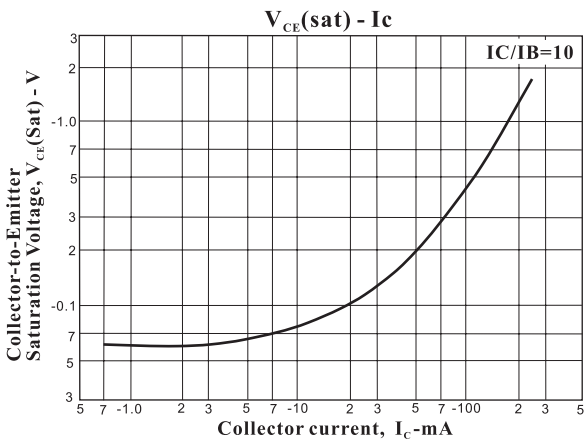
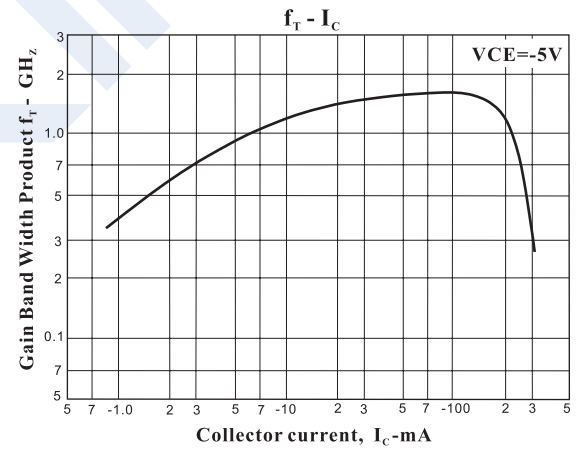
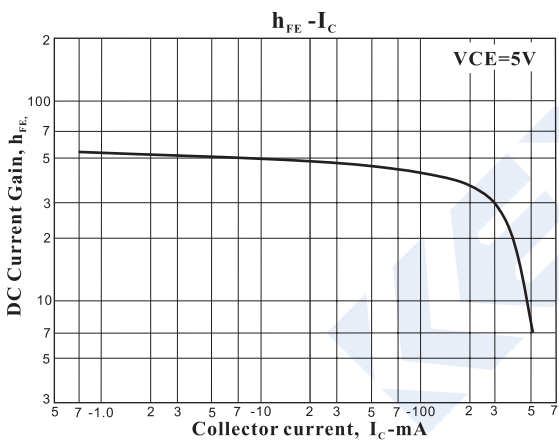
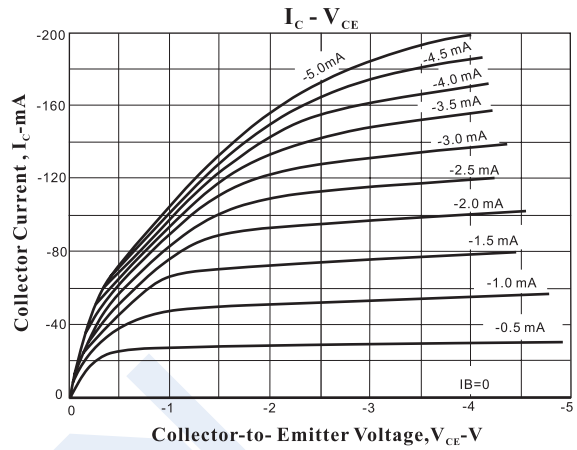
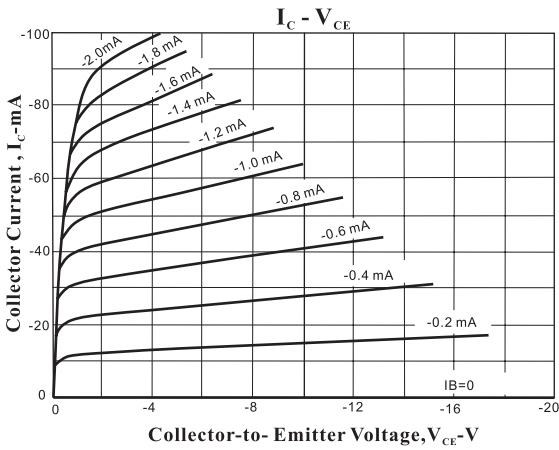
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -2\text{V}, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	15		100	
		$V_{CE} = -5\text{V}, I_C =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

■ Marking

Marking	AJ
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2SA1724

Electrical Characteristics Curves



2SA1724

