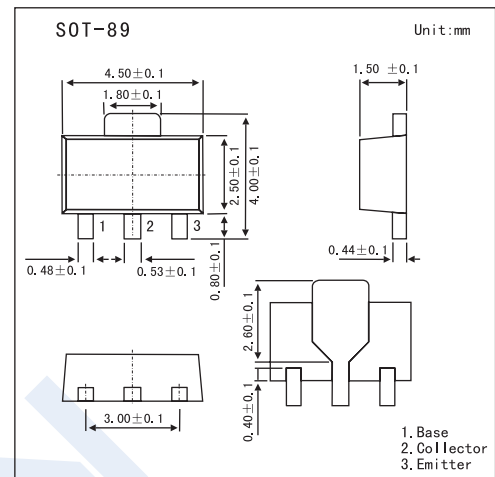


## Video Output Driver Applications

## 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 mm<sup>2</sup> x 0.8 mm)

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

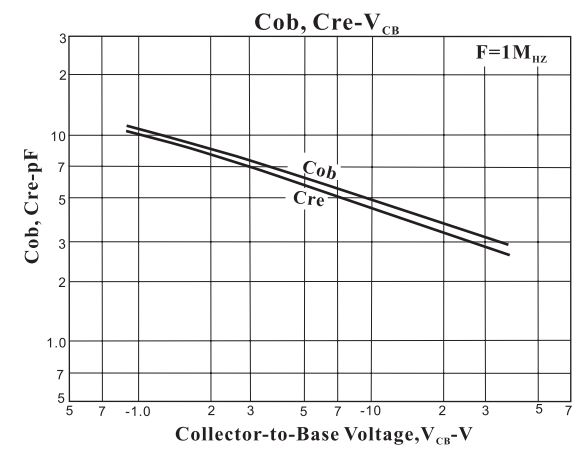
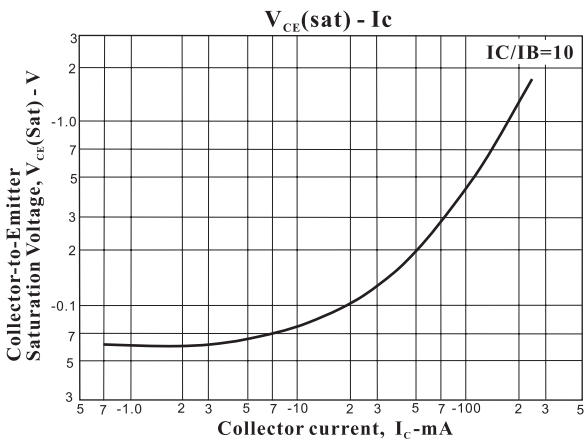
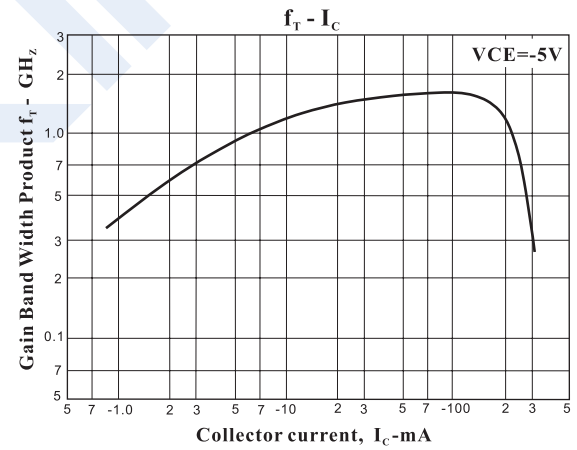
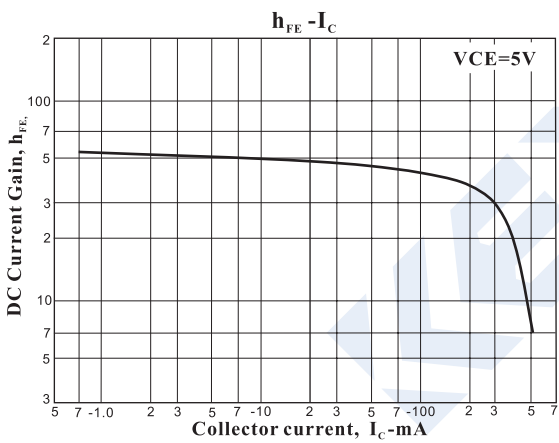
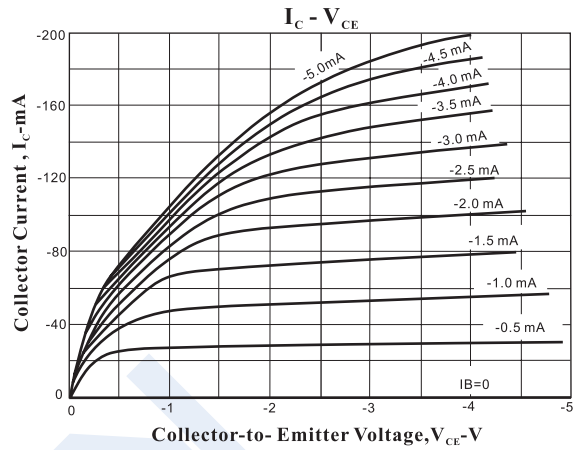
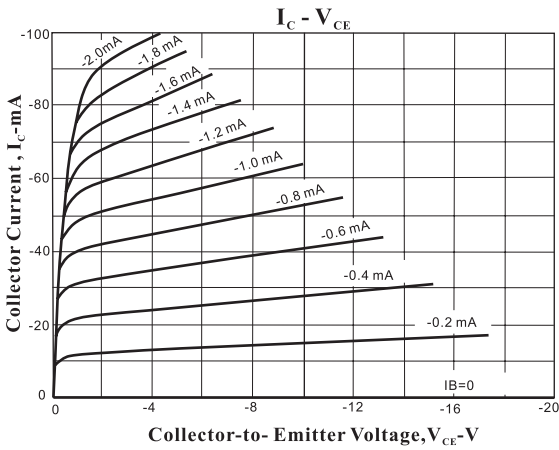
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -2\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	15		100	
		$V_{CE} = -5\text{V}, I_C = -300\text{mA}$	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

# 2SA1724

## Electrical Characteristics Curves



2SA1724

