

2SC3610

Silicon NPN Epitaxial Planar Type

Video Amplifier

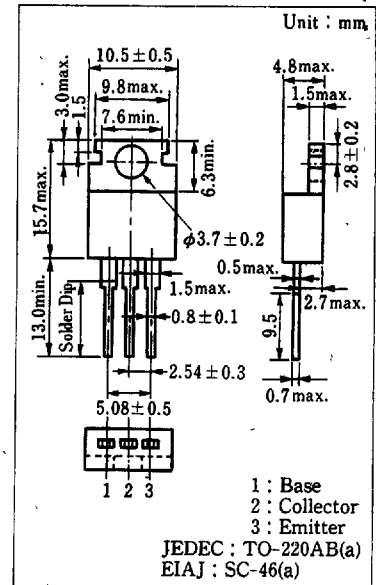
■ Features

- High transition frequency (f_T)
- Small collector output capacitance (C_{ob})
- Wide current range

■ Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	110	V
Collector-emitter voltage	V_{CER}	100	V
	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	3.5	V
Peak collector current	I_{CP}	300	mA
Collector current	I_C	150	mA
Collector power dissipation ($T_c=25^\circ\text{C}$)	P_C	10	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$

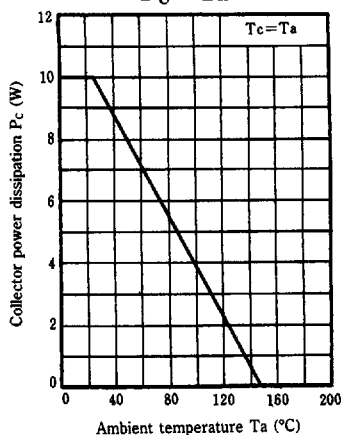
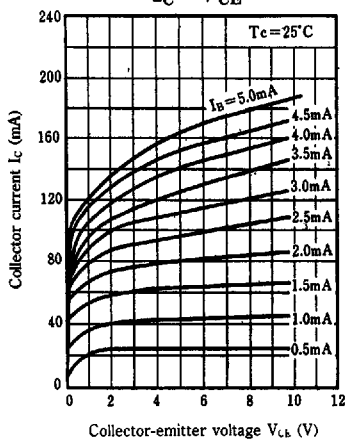
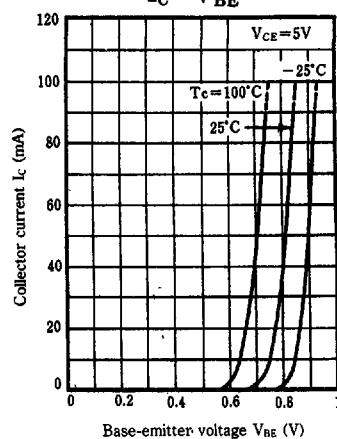
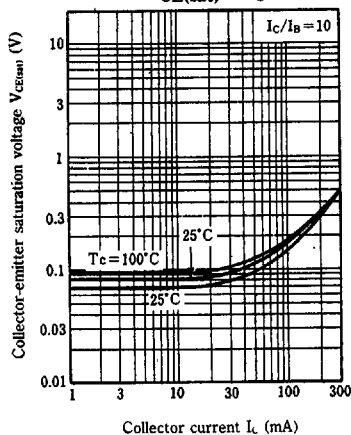
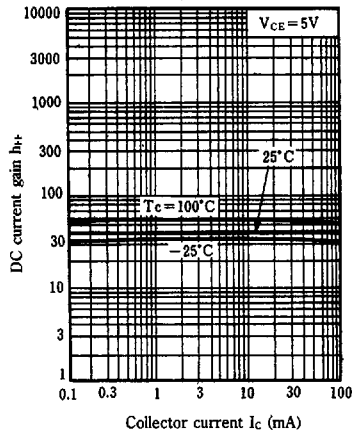
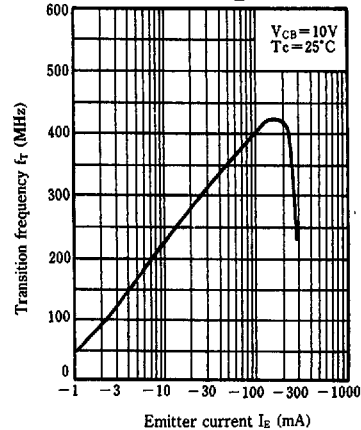
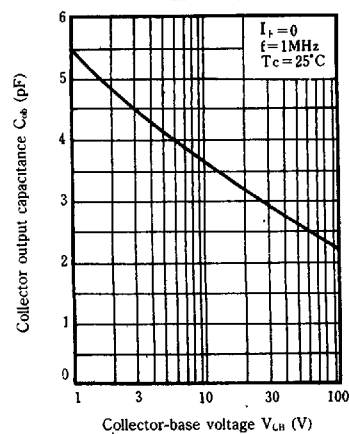
■ Package Dimensions



■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CEO}	$V_{CE}=35\text{ V}, I_B=0$			10	μA
Collector-base voltage	V_{CBO}	$I_C=100\text{ }\mu\text{A}, I_E=0$	110			V
Collector-emitter voltage	V_{CER}	$I_C=500\text{ }\mu\text{A}, R_{BE}=470\text{ }\Omega$	100			V
Collector-emitter voltage	V_{CEO}	$I_C=1\text{ mA}, I_B=0$	50			V
Emitter-base voltage	V_{EBO}	$I_E=100\text{ }\mu\text{A}, I_C=0$	3.5			V
DC current gain	h_{FE}	$V_{CE}=5\text{ V}, I_C=100\text{ mA}^*$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150\text{ mA}, I_B=15\text{ mA}^*$			0.5	V
Transition frequency	f_{T1}	$V_{CB}=10\text{ V}, I_E=-10\text{ mA}, f=200\text{ MHz}$		300		MHz
	f_{T2}	$V_{CB}=10\text{ V}, I_E=-110\text{ mA}^*, f=200\text{ MHz}$		350		MHz
Collector output capacitance	C_{ob}	$V_{CB}=30\text{ V}, I_E=0, f=1\text{ MHz}$		3		pF

*2 Pulse measurement

$P_C - T_a$  $I_C - V_{CE}$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$ 

Area of safe operation (ASO)

