2SC3945

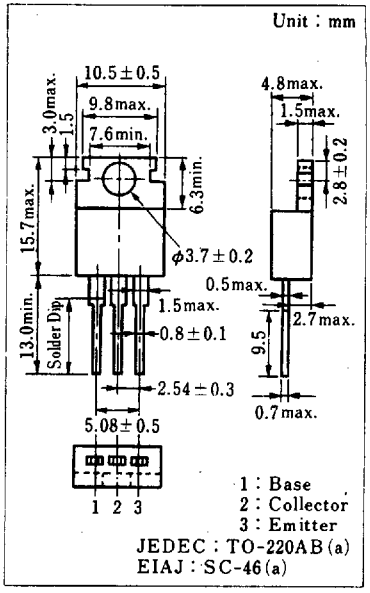
Silicon NPN Triple-Diffused Planar Type

Color TV Chroma Output

■ Features

- High collector-emitter voltage (V_{CEO})
- Large collector power dissipation (P_C)

■ Package Dimensions



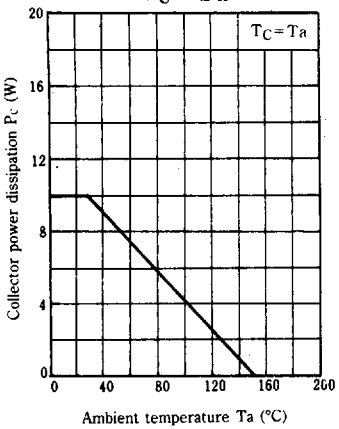
■ Absolute Maximum Ratings (Tc=25°C)

Item		Symbol	Value	Unit
Collector-base voltage		V_{CBO}	300	V
Collector-emitter voltage		V_{CEO}	300	V
Emitter-base voltage		V_{EBO}	7	V
Peak collector current		I_{CP}	200	mA
Collector current		I_C	100	mA
Collector power dissipation	T_C=25°C	P_C	10	W
	Ta=25°C		2.0	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55～+150	°C

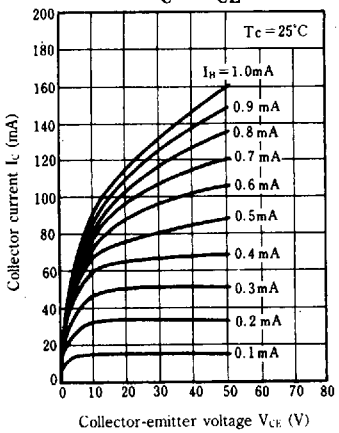
■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CEO}	V_{CE}=200V, I_B=0			10	μA
Collector-base voltage	V_{CBO}	I_C=100μA, I_E=0	300			V
Collector-emitter voltage	V_{CEO}	I_C=1mA, I_B=0	300			V
Emitter-base voltage	V_{EBO}	I_E=100μA, I_C=0	7			V
DC current gain	h_{FE1}	V_{CE}=50V, I_C=5mA	50		250	
	h_{FE2}	V_{CE}=10V, I_C=30mA	30			
Base-emitter voltage	V_{BE}	V_{CE}=10V, I_C=30mA			1.2	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50mA, I_B=5mA			1.5	V
Transition frequency	f_T	V_{CE}=30V, I_C=20mA, f=10MHz	70	100		MHz
Collector output capacitance	C_{ob}	V_{CB}=30V, I_E=0, f=1MHz			5.5	pF

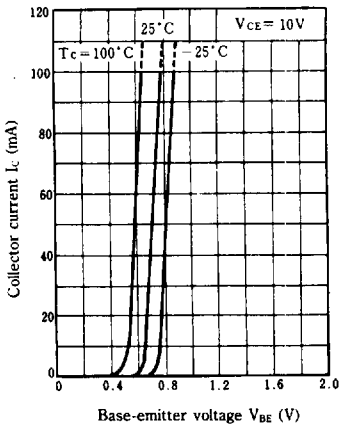
$P_C - T_a$



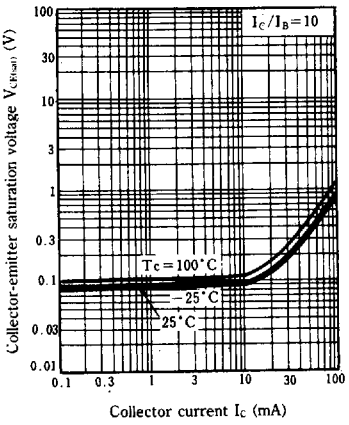
$I_C - V_{CE}$



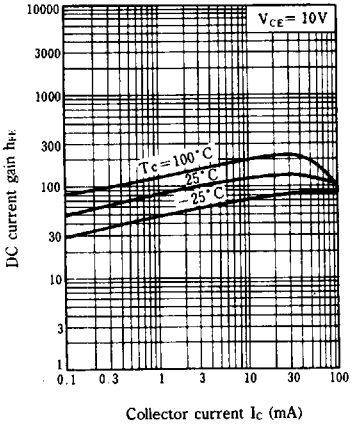
$I_C - V_{BE}$



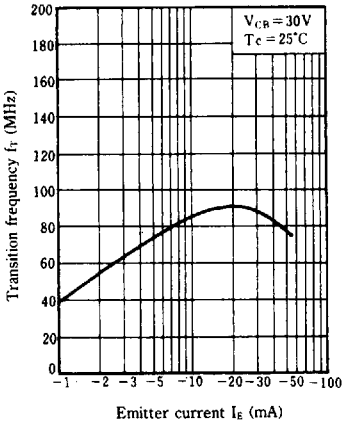
$V_{CE(sat)} - I_C$



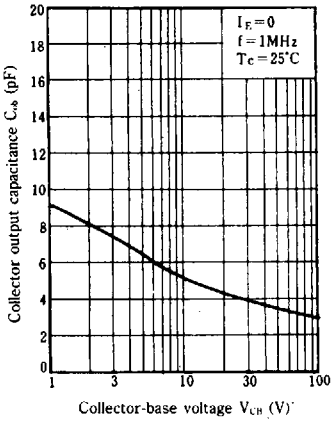
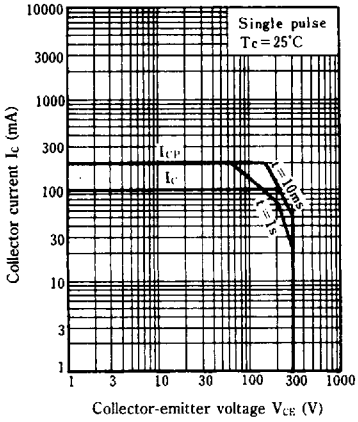
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



Area of safe operation (ASO)