

2SC3946

Silicon NPN triple diffusion planar type

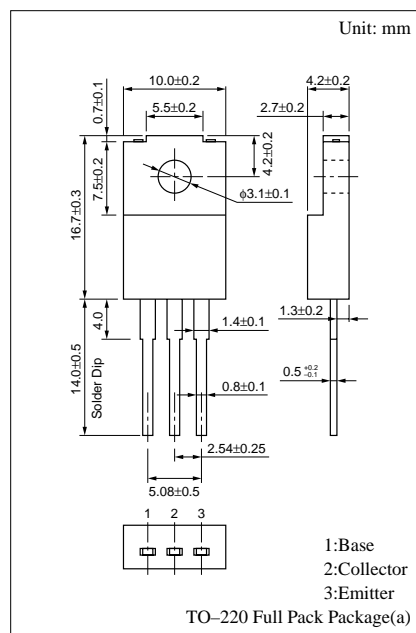
For color TV horizontal deflection driver

Features

- High collector to emitter V_{CEO}
- Large collector power dissipation P_C
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Ratings	Unit	
Collector to base voltage	V_{CBO}	350	V	
Collector to emitter voltage	V_{CEO}	300	V	
Emitter to base voltage	V_{EBO}	7.5	V	
Peak collector current	I_{CP}	400	mA	
Collector current	I_C	200	mA	
Collector power dissipation	P_C	$T_C=25^\circ\text{C}$	15	W
		$T_a=25^\circ\text{C}$	2.0	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	



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

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 200\text{V}, I_E = 0$			2	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			2	μA
Collector to base voltage	V_{CBO}	$I_C = 100\mu\text{A}, I_E = 0$	350			V
	V_{CEO}	$I_C = 5\text{mA}, I_B = 0$	300			V
Collector to emitter voltage	V_{CER}	$I_C = 100\mu\text{A}, I_B = 0, R_{BE} = 1\text{k}\Omega$	350			V
	V_{CEO}	$I_E = 100\mu\text{A}, I_C = 0$	7.5			V
Forward current transfer ratio	h_{FE}	$V_{CB} = 10\text{V}, I_C = 10\text{mA}$	40		250	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$			1	V
Transition frequency	f_T	$V_{CE} = 30\text{V}, I_C = 10\text{mA}, f = 1\text{MHz}$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB} = 50\text{V}, I_E = 0, f = 1\text{MHz}$			5	pF

