

2SC4358 (Preliminary)

Silicon NPN Epitaxial Planar Type

Video Output

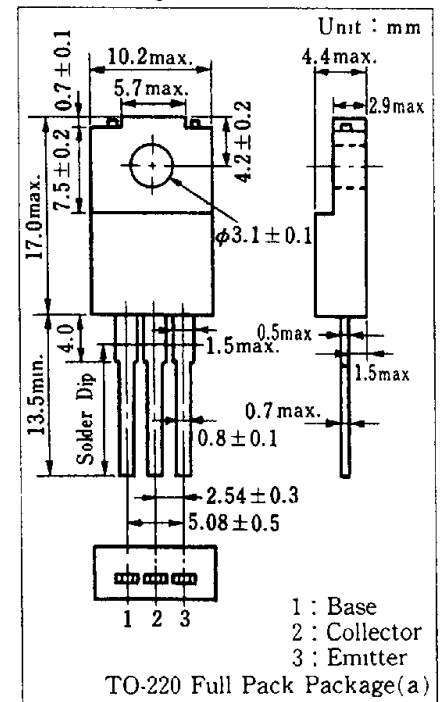
■ Feature

- High transition frequency (f_T)

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

Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	35	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	4	V
Peak collector current	I_{CP}	500	mA
Collector current	I_C	300	mA
Collector power dissipation ($T_c=25^\circ\text{C}$)	P_C	2.0	W
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

■ Package Dimensions

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

Item	Symbol	Condition	min.	typ.	max.	Unit
Emitter cutoff current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			10	μA
Collector-base voltage	V_{CB0}	$I_C=100\mu\text{A}, I_E=0$	35			V
Collector-emitter voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	25			V
DC current gain	h_{FE}	$V_{CE}=10\text{V}, I_C=50\text{mA}$	40		200	
Base-emitter voltage	V_{EBO}	$I_E=100\mu\text{A}, I_B=0$	4			V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.4	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=800\text{MHz}$	2.0	2.5		GHz
Collector output capacitance	C_{ob}	$V_{CB}=30\text{V}, I_E=0, f=1\text{MHz}$		2.6		pF
Transient thermal resistance	$R_{th(j-c)}$				15.0	$^\circ\text{C}/\text{W}$