

**2SC4358** (Preliminary)

## Silicon NPN Epitaxial Planar Type

## Video Output

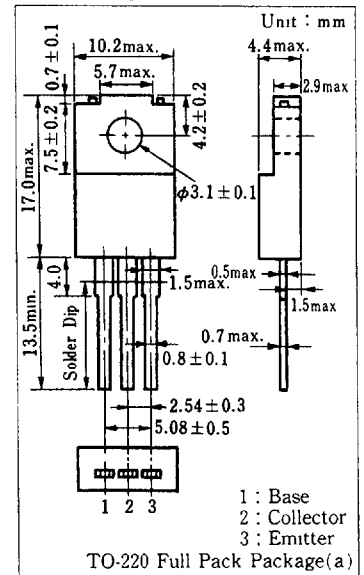
## ■ Feature

- High transition frequency ( $f_T$ )

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

Item	Symbol	Value	Unit
Collector-base voltage	$V_{CBO}$	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	$\mu\text{A}$
Collector-base voltage	$V_{CBO}$	$I_C=100\mu\text{A}, I_E=0$	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	$^\circ\text{C}/\text{W}$