

2SC3063

Silicon NPN triple diffusion planar type

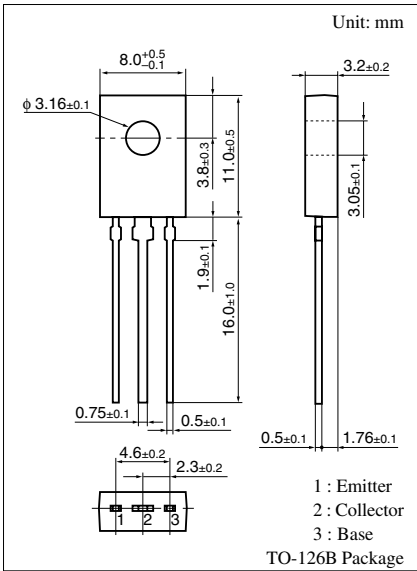
For TV video output amplification

■ Features

- High collector to emitter voltage V_{CEO}
- Small collector output capacitance C_{ob}
- TO-126B package which requires no insulation plate for installation to the heat sink

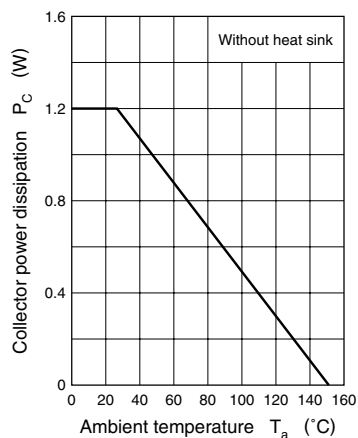
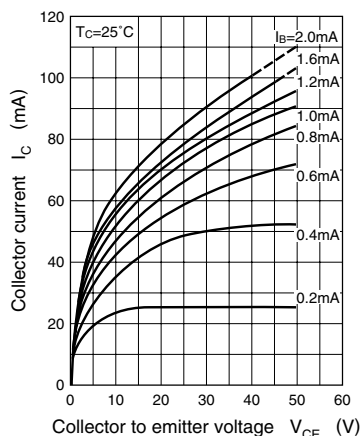
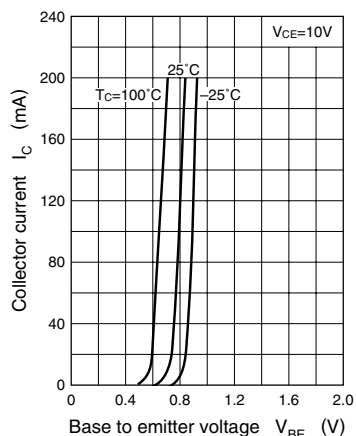
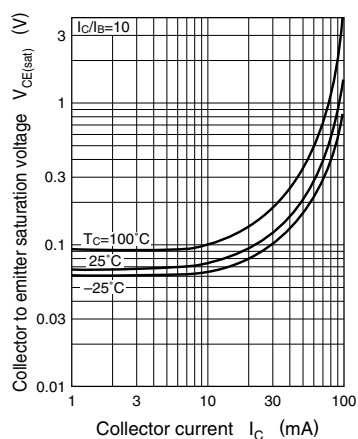
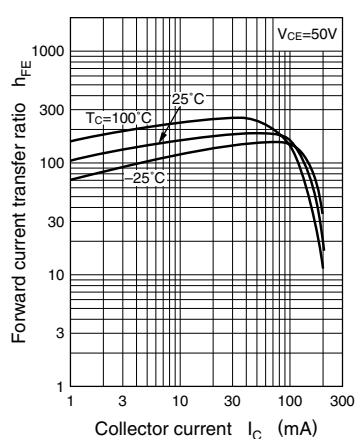
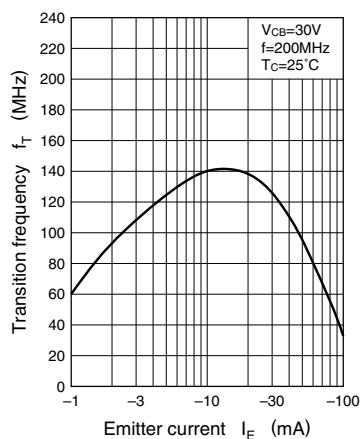
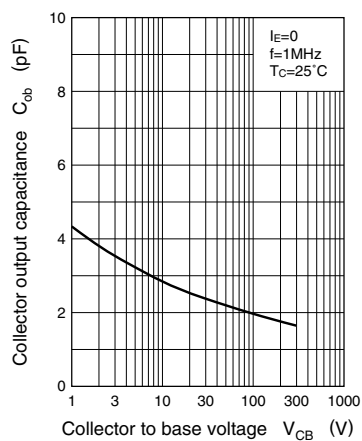
■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	300	V
Collector to emitter voltage	V_{CEO}	300	V
Emitter to base voltage	V_{EBO}	7	V
Peak collector current	I_{CP}	200	mA
Collector current	I_C	100	mA
Collector power dissipation	P_C	1.2	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

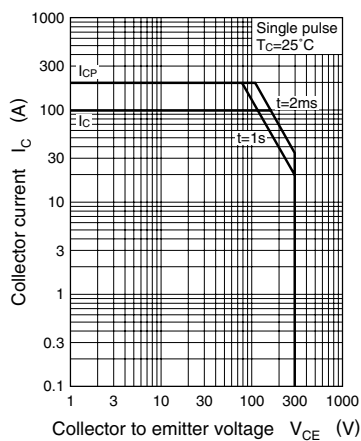


■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	V_{CBO}	$I_C = 10 \mu\text{A}$, $I_E = 0$	300			V
Collector to emitter voltage	V_{CEO}	$I_C = 0.1 \text{ mA}$, $I_B = 0$	300			V
Emitter to base voltage	V_{EBO}	$I_E = 10 \mu\text{A}$, $I_C = 0$	7			V
Forward current transfer ratio	h_{FE}	$V_{CE} = 50 \text{ V}$, $I_C = 5 \text{ mA}$	50		250	
Base to emitter voltage	V_{BE}	$V_{CE} = 10 \text{ V}$, $I_C = 30 \text{ mA}$			1.2	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 30 \text{ mA}$, $I_B = 3 \text{ mA}$			1.5	V
Transition frequency	f_T	$V_{CB} = 30 \text{ V}$, $I_E = -20 \text{ mA}$, $f = 200 \text{ MHz}$	70	140		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 30 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		2.4		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)



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