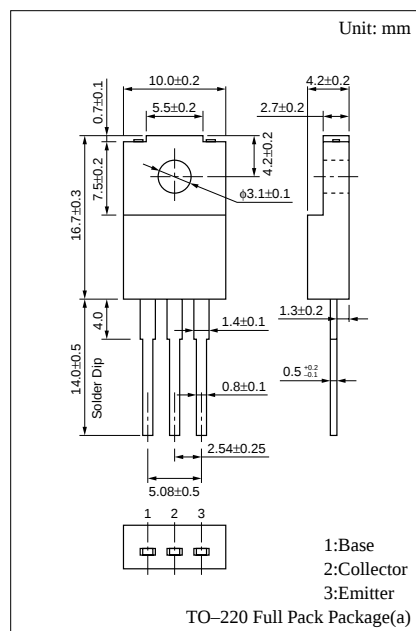


Silicon NPN triple diffusion planar type

■ Features

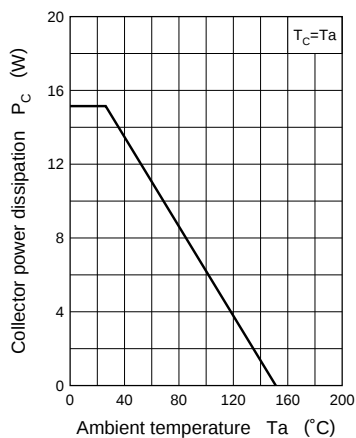
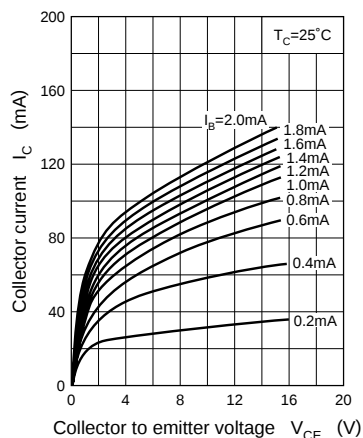
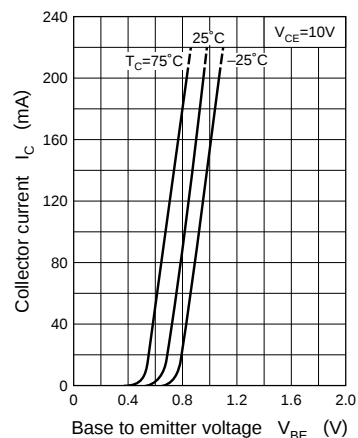
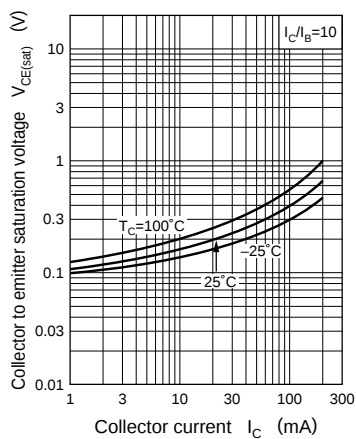
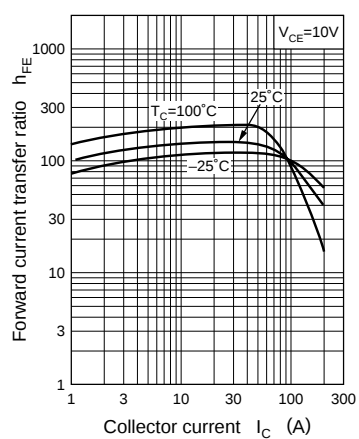
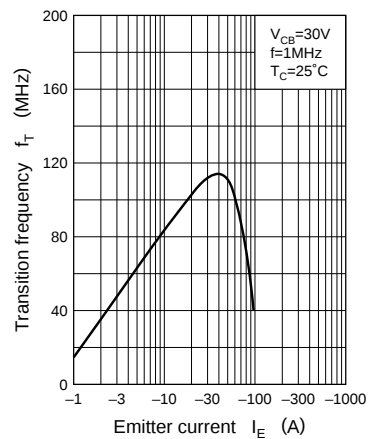
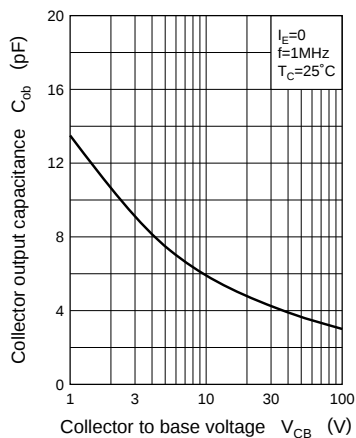
- Absolute Maximum Ratings (T_C=25°C)

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	$T_C=25^{\circ}\text{C}$	P_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°C)

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

