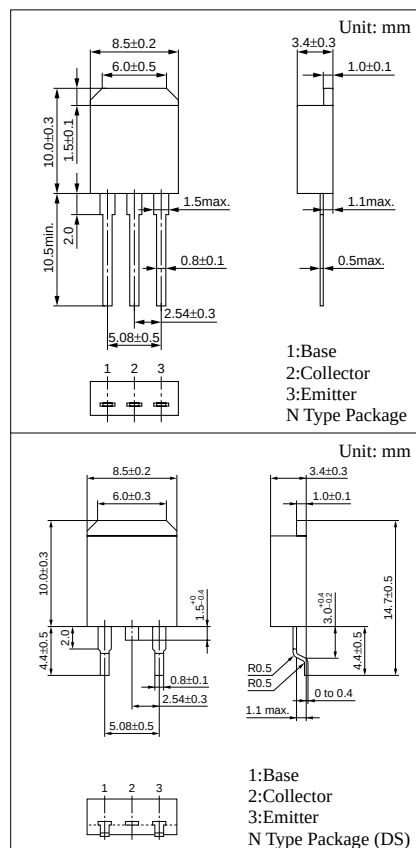


Silicon NPN triple diffusion planar type

■ Features

- High forward current transfer ratio h_{FE}
- Satisfactory linearity of forward current transfer ratio h_{FE}
- N type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment.

Parameter		Symbol	Ratings	Unit
Collector to base voltage		V_{CBO}	200	V
Collector to emitter voltage		V_{CEO}	150	V
Emitter to base voltage		V_{EBO}	6	V
Peak collector current		I_{CP}	2.5	A
Collector current		I_C	1	A
Base current		I_B	0.1	A
Collector power dissipation	$T_C=25^\circ\text{C}$	P_C	40	W
	$T_a=25^\circ\text{C}$		1.3	
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature		T_{stg}	-55 to +150	$^\circ\text{C}$

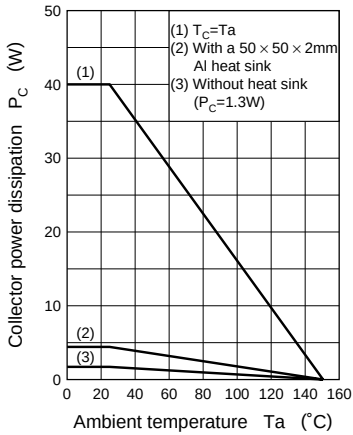
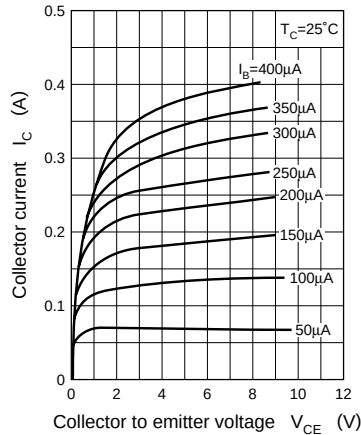
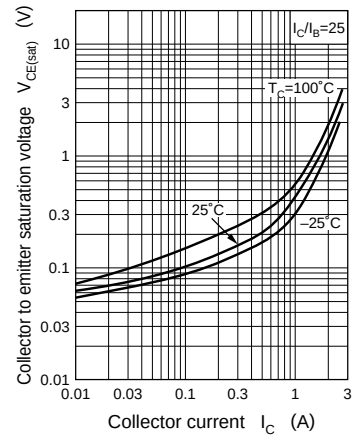
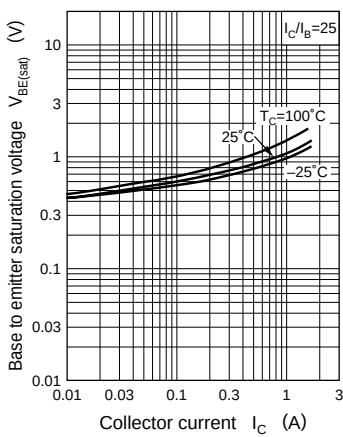
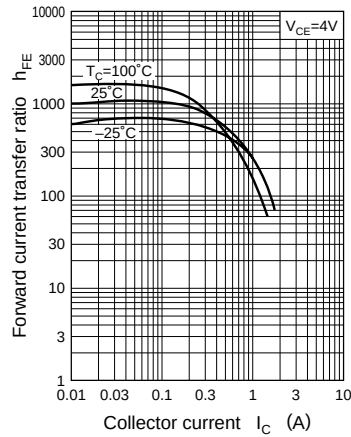
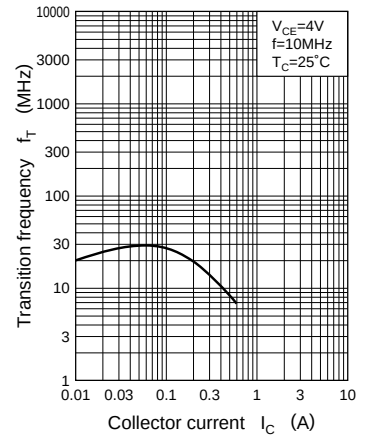


Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 200V, I_E = 0$			100	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 6V, I_C = 0$			100	μA
Collector to emitter voltage	V_{CEO}	$I_C = 25mA, I_B = 0$	150			V
Forward current transfer ratio	h_{FE}^*	$V_{CE} = 4V, I_C = 0.2A$	500		2000	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 0.5A, I_B = 0.02A$			1	V
Transition frequency	f_T	$V_{CE} = 4V, I_C = 0.1A, f = 10MHz$		25		MHz

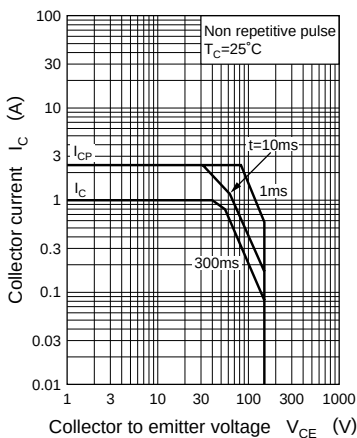
*h_{FF} Rank classification

Rank	Q	P
h_{FE}	500 to 1200	800 to 2000

Note: Ordering can be made by the common rank (PQ rank $h_{\text{FF}} = 500$ to 2000) in the rank classification.

$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_C$ 

Area of safe operation (ASO)

 $R_{th(t)} - t$ 