

# 2SD2575

## Silicon NPN epitaxial planer type

For low-frequency power amplification

### Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .

### Absolute Maximum Ratings (Ta=25°C)

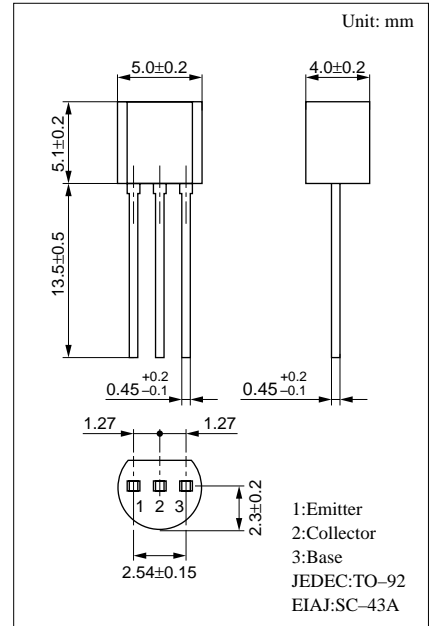
Parameter	Symbol	Rated	Unit
Collector to base voltage	$V_{CBO}$	15	V
Collector to emitter voltage	$V_{CEO}$	10	V
Emitter to base voltage	$V_{EBO}$	10	V
Peak collector current	$I_{CP}^{*1}$	9	A
Collector current	$I_C$	5	A
Collector power dissipation	$P_C$	750	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C

\*1 Measuring time: t = 380µsec

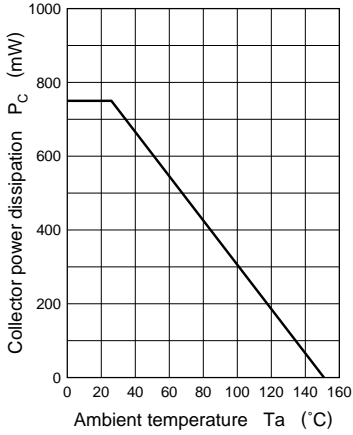
### Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 10V, I_E = 0$			0.1	µA
	$I_{CEO}$	$V_{CE} = 5V, I_B = 0$			1.0	µA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$			0.1	µA
Collector to emitter voltage	$V_{CEO}$	$I_C = 1mA, I_B = 0$	10			V
Emitter to base voltage	$V_{EBO}$	$I_E = 10µA, I_C = 0$	10			V
Forward current transfer ratio	$h_{FE1}$	$V_{CE} = 2V, I_C = 0.5A^*$	700			
	$h_{FE2}$	$V_{CE} = 2V, I_C = 2A^*$	195			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3A, I_B = 0.1A^*$		0.28	0.5	V
Transition frequency	$f_T$	$V_{CB} = 6V, I_E = -50mA, f = 200MHz$		170		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 20V, I_E = 0, f = 1MHz$		45	65	pF

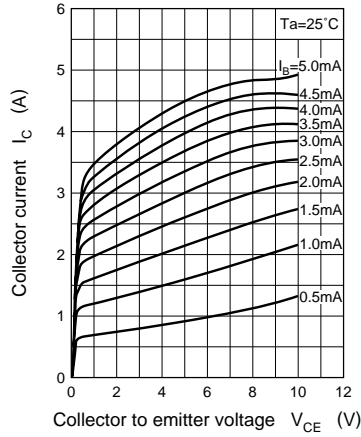
\* Pulse measurement



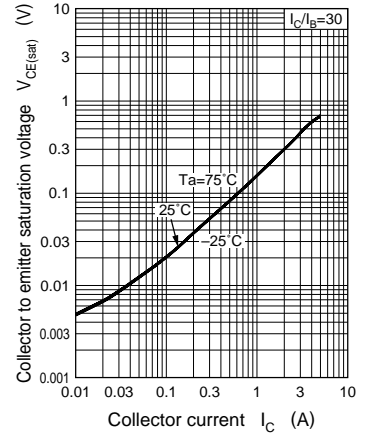
$P_C - T_a$



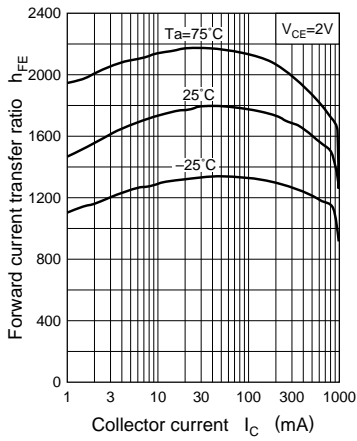
$I_C - V_{CE}$



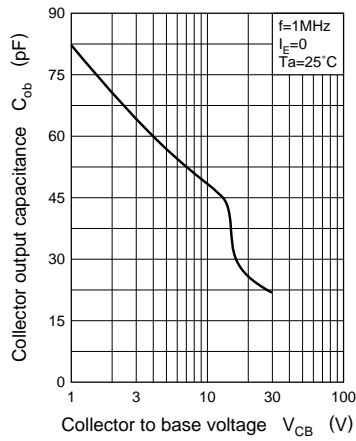
$V_{CE(sat)} - I_C$



$h_{FE} - I_C$



$C_{ob} - V_{CB}$



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