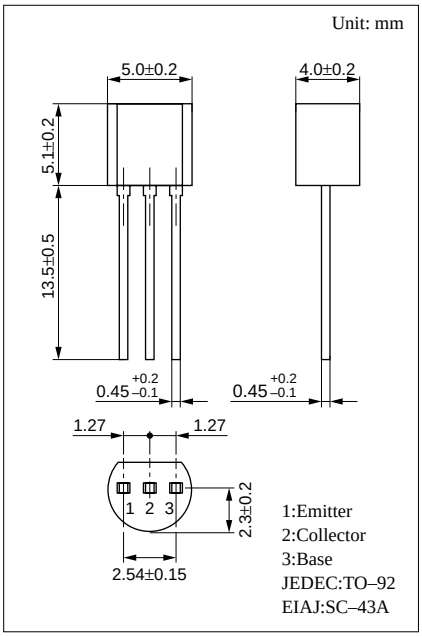
2SD2575

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	Ratings	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

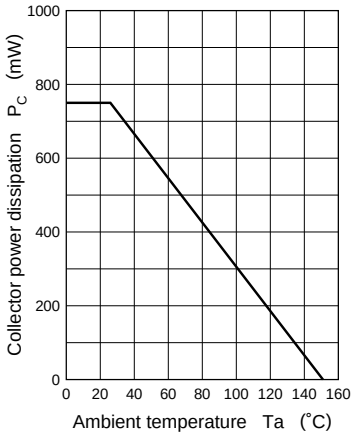
*1 Measuring time: t = 380μsec

Electrical Characteristics (Ta=25˚C)

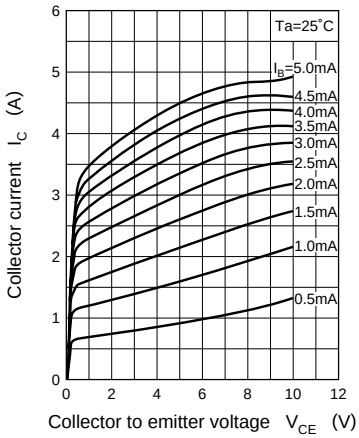
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 10V, I_E = 0			0.1	μA
	I_{CEO}	V_{CE} = 5V, I_B = 0			1.0	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 5V, I_C = 0			0.1	μA
Collector to emitter voltage	V_{CEO}	I_C = 1mA, I_B = 0	10			V
Emitter to base voltage	V_{EBO}	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

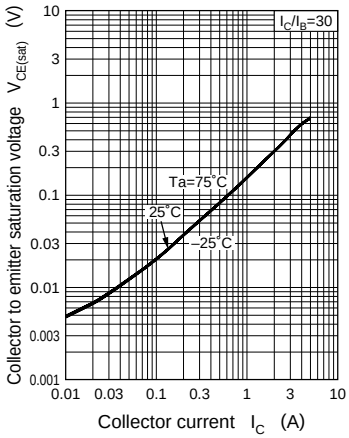
P_C — Ta



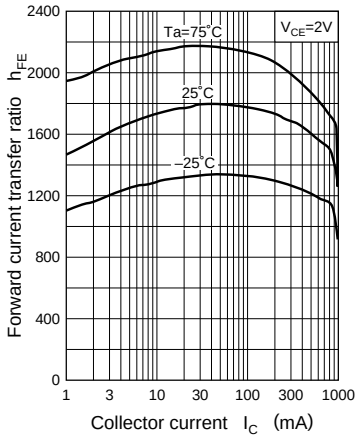
I_C — V_{CE}



$V_{CE(sat)}$ — I_C



h_{FE} — I_C



C_{ob} — V_{CB}