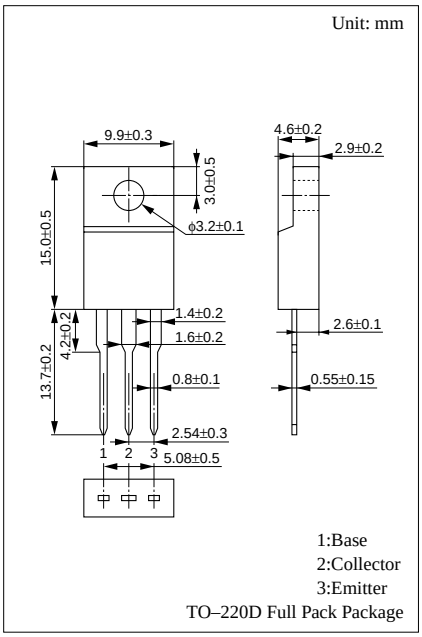
2SD2528

Silicon NPN epitaxial planar type

For power amplification with high forward current transfer ratio



Features

- High foward current transfer ratio h_{FE}
- Satisfactory linearity of foward current transfer ratio h_{FE}
- Full-pack package which can be installed to the heat sink with one screw

Absolute Maximum Ratings (T_C=25˚C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage		V_{CBO}	80	V
Collector to emitter voltage		V_{CEO}	60	V
Emitter to base voltage		V_{EBO}	6	V
Peak collector current		I_{CP}	10	A
Collector current		I_C	5	A
Base current		I_B	1	A
Collector power dissipation	T_C=25°C	P_C	40	W
	Ta=25°C		2.0	
Junction temperature		T_j	150	˚C
Storage temperature		T_{stg}	–55 to +150	˚C

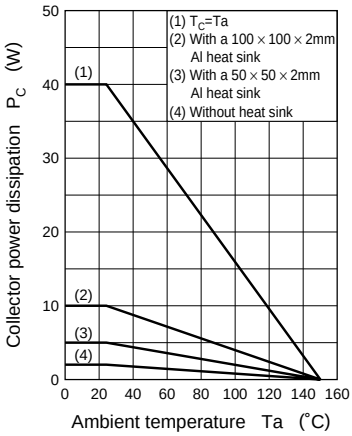
Electrical Characteristics (T_C=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 80V, 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	60			V
Forward current transfer ratio	h_{FE}*	V_{CE} = 4V, I_C = 1A	500		2000	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 4A, I_B = 0.1A			0.3	V
Transition frequency	f_T	V_{CE} = 12V, I_C = 0.4A, f = 10MHz		30		MHz
Turn-on time	t_{on}	I_C = 4A, I_{B1} = 0.08A, I_{B2} = – 0.08A, V_{CC} = 50V		0.4		µs
Storage time	t_{stg}			2.0		µs
Fall time	t_f			0.6		µs

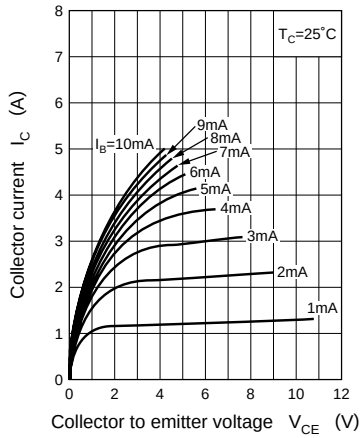
*h_{FE} Rank classification

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

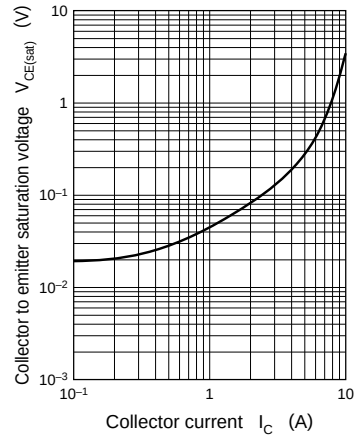
P_C — Ta



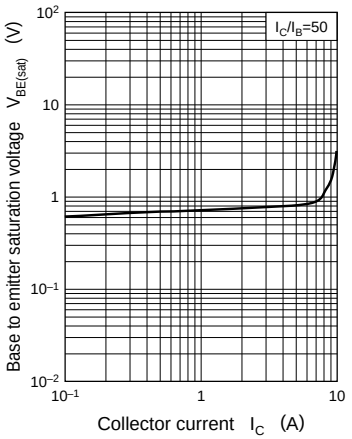
I_C — V_{CE}



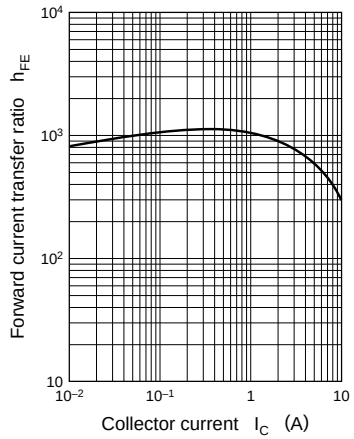
$V_{CE(sat)}$ — I_C



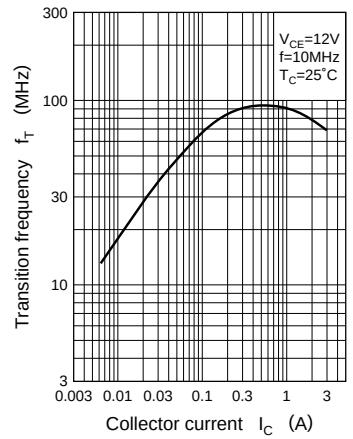
$V_{BE(sat)}$ — I_C



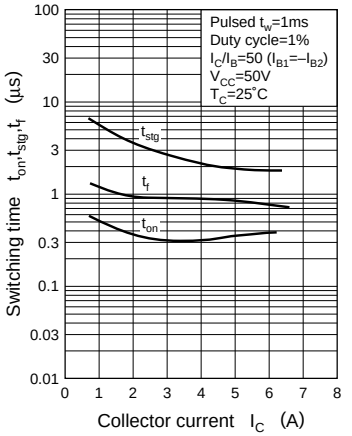
h_{FE} — I_C



f_T — I_C



t_{on}, t_{stg}, t_f — I_C



Area of safe operation (ASO)

