

2SD2528

Silicon NPN epitaxial planar type

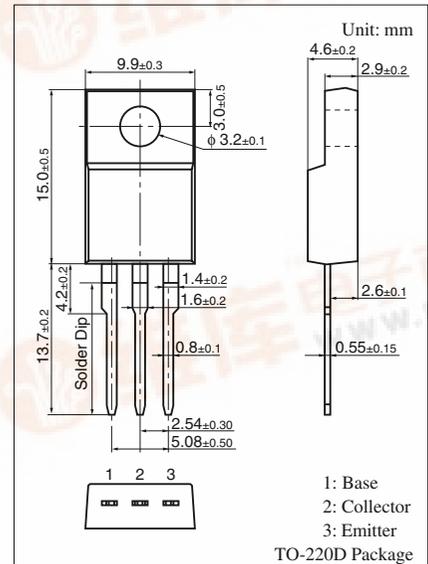
For power amplification with high forward current transfer ratio

■ Features

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

■ Absolute Maximum Ratings $T_C = 25^\circ C$

Parameter	Symbol	Rating	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	P_C	$T_C = 25^\circ C$	40
		$T_a = 25^\circ C$	2.0
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

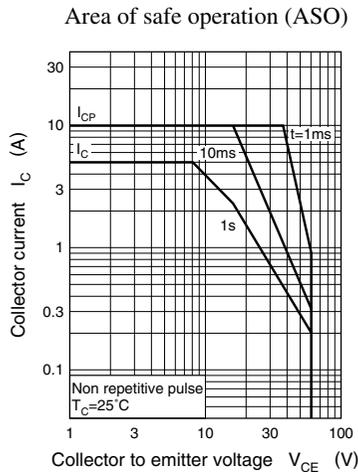
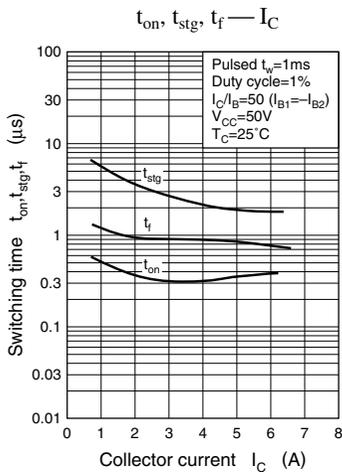
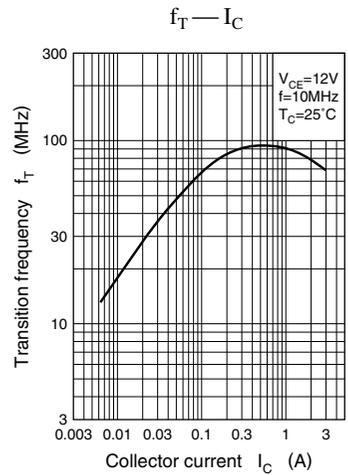
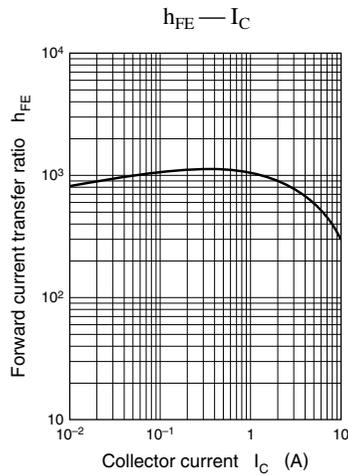
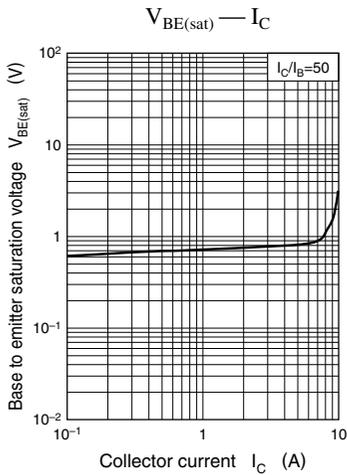
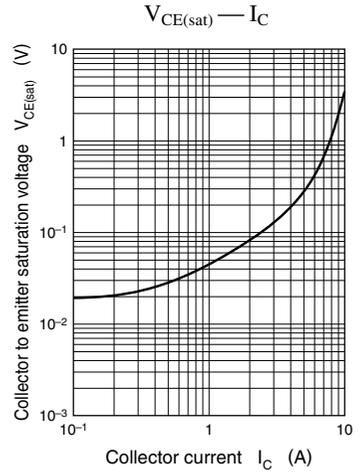
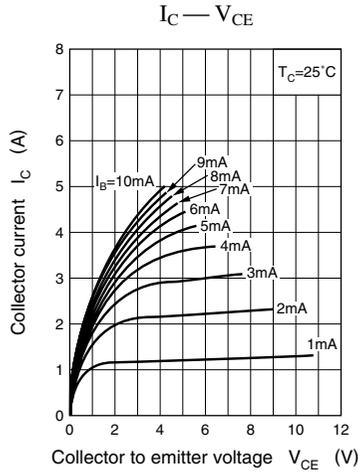
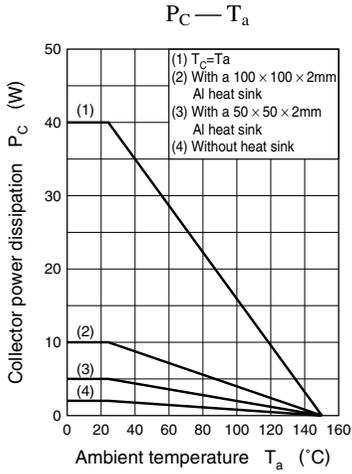


■ Electrical Characteristics $T_C = 25^\circ C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit	
Collector cutoff current	I_{CBO}	$V_{CB} = 80 V, I_E = 0$			100	μA	
Emitter cutoff current	I_{EBO}	$V_{EB} = 6 V, I_C = 0$			100	μA	
Collector to emitter voltage	V_{CEO}	$I_C = 25 mA, I_B = 0$	60			V	
Forward current transfer ratio *	h_{FE}	$V_{CE} = 4 V, I_C = 1 A$	500		2 000		
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4 A, I_B = 0.1 A$			0.3	V	
Transition frequency	f_T	$V_{CE} = 12 V, I_C = 0.4 A, f = 10 MHz$		30		MHz	
Turn-on time	t_{on}	$I_C = 4 A, I_{B1} = 0.08 A, I_{B2} = -0.08 A, V_{CC} = 50 V$		0.4		μs	
Storage time	t_{stg}				2.0		μs
Fall time	t_f				0.6		μs

Note) *: Rank classification

Rank	P	Q
h_{FE}	800 to 2 000	500 to 1 200



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