

2SD2225

Silicon NPN epitaxial planer type

For low-frequency amplification

Complementary to 2SB1473

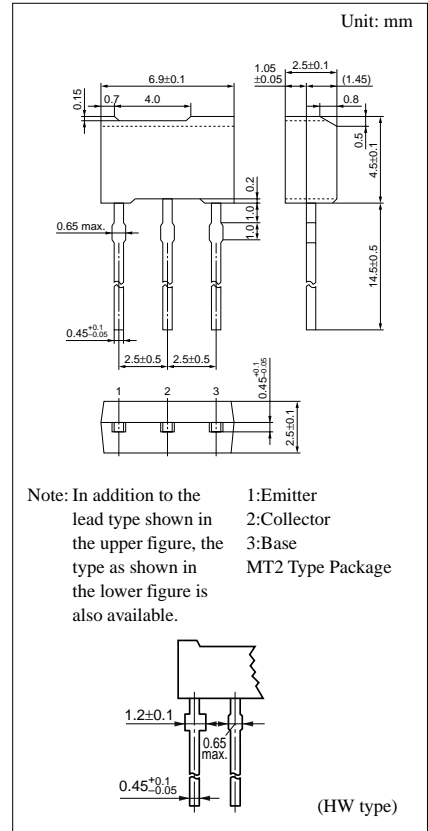
■ Features

- High collector to emitter voltage V_{CEO} of 120V.
- Optimum for low-frequency driver amplification.
- Allowing supply with the radial taping.

■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	120	V
Collector to emitter voltage	V_{CEO}	120	V
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1	A
Collector current	I_C	0.5	A
Collector power dissipation	P_C^*	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

* Printed circuit board: Copper foil area of 1cm² or more, and the board thickness of 1.7mm for the collector portion



■ Electrical Characteristics (Ta=25°C)

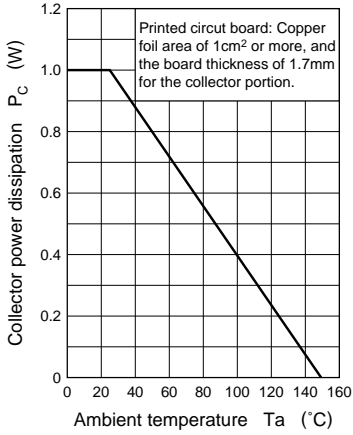
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to emitter voltage	V_{CEO}	$I_C = 0.1mA, I_B = 0$	120			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	5			V
Forward current transfer ratio	h_{FE1}^{*1}	$V_{CE} = 10V, I_C = 150mA^{*2}$	90		330	
	h_{FE2}	$V_{CE} = 5V, I_C = 500mA^{*2}$	50			
	h_{FE3}	$V_{CE} = 5V, I_C = 100mA^{*2}$	100			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 300mA, I_B = 30mA^{*2}$		0.15	1	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 300mA, I_B = 30mA^{*2}$		0.9	1.2	V
Transition frequency	f_T	$V_{CB} = 10V, I_E = -50mA, f = 200MHz^{*2}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		11.5	20	pF

*2 Pulse measurement

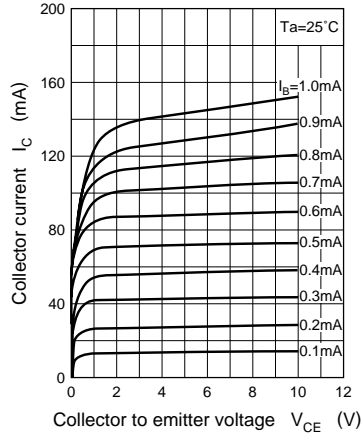
*1 h_{FE1} Rank classification

Rank	Q	R	S
h_{FE1}	90 ~ 155	130 ~ 220	185 ~ 330

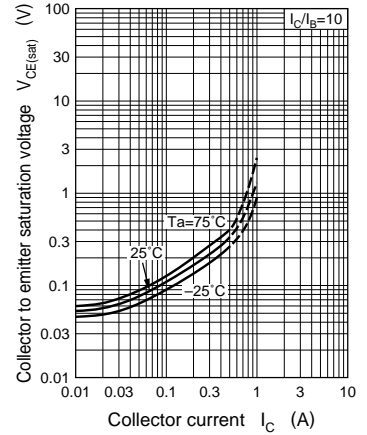
$P_C - T_a$



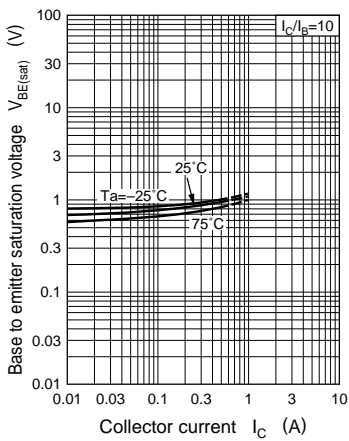
$I_C - V_{CE}$



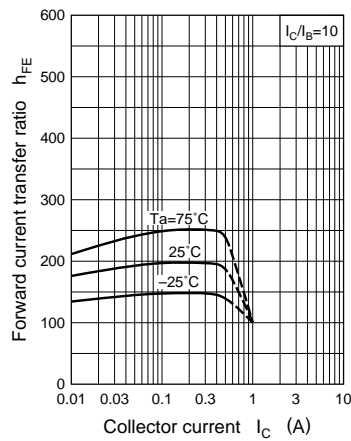
$V_{CE(sat)} - I_C$



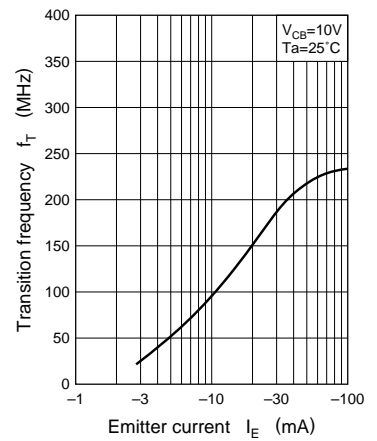
$V_{BE(sat)} - I_C$



$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$

