

2SD2565

Silicon NPN triple diffusion planer type

For high voltage-withstand switching

■ Features

- High collector to base voltage V_{CBO}
- High collector to emitter voltage V_{CEO}
- Large collector power dissipation P_C
- Low collector to emitter saturation voltage $V_{CE(sat)}$
- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

■ Absolute Maximum Ratings (Ta=25°C)

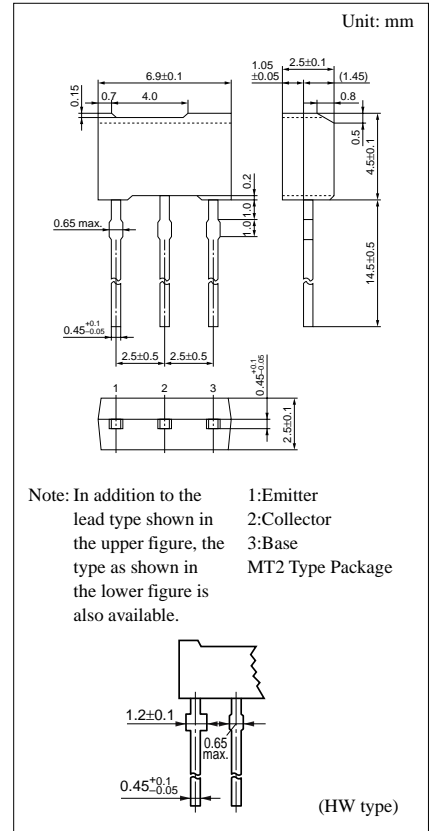
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	400	V
Collector to emitter voltage	V_{CEO}	400	V
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1	A
Collector current	I_C	0.5	A
Collector power dissipation	P_C^{*1}	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

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

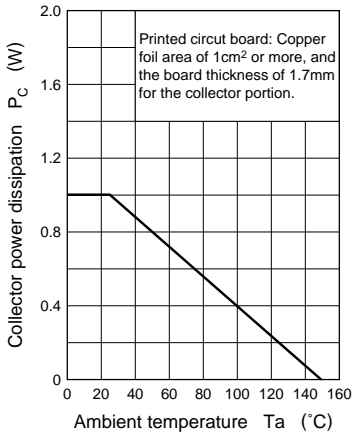
■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = 100\mu A, I_E = 0$	400			V
Collector to emitter voltage	V_{CEO}	$I_C = 500\mu A, I_B = 0$	400			V
Emitter to base voltage	V_{EBO}	$I_E = 100\mu A, I_C = 0$	5			V
Forward current transfer ratio	h_{FE}	$V_{CE} = 5V, I_C = 30mA$	30			-
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 250mA, I_B = 50mA^*$			1.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 250mA, I_B = 50mA^*$			1.5	V
Transition frequency	f_T	$V_{CB} = 30V, I_E = -20mA, f = 200MHz$		30		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 30V, I_E = 0, f = 1MHz$		6	20	pF
Turn-on time	t_{on}	$I_C = 100mA$ $I_{B1} = 10mA, I_{B2} = -10mA$ $V_{CC} = 200V$		0.8		μS
Storage time	t_{stg}			3.7		μS
Fall time	t_f			0.6		μS

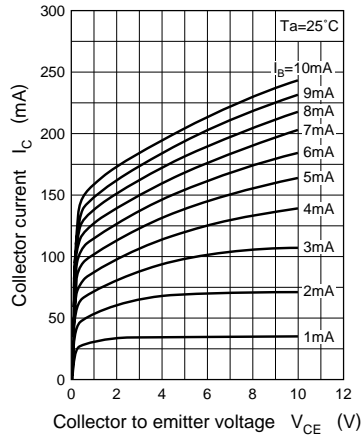
* Pulse measurement



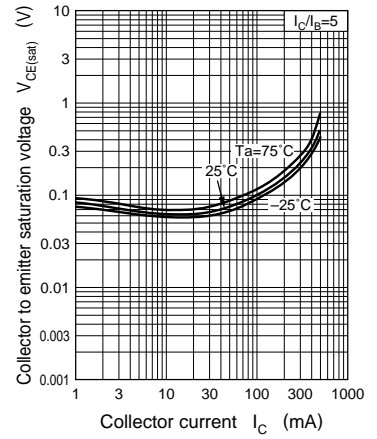
$P_C - T_a$



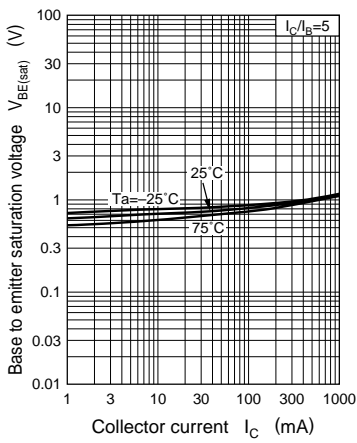
$I_C - V_{CE}$



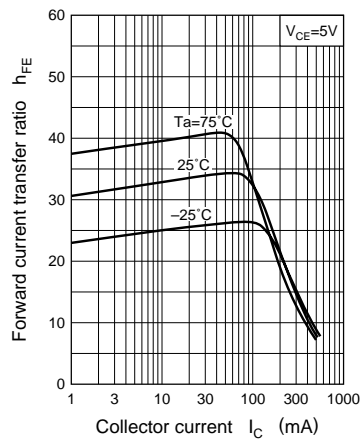
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



$h_{FE} - I_C$



$C_{ob} - V_{CB}$

