2SD2565

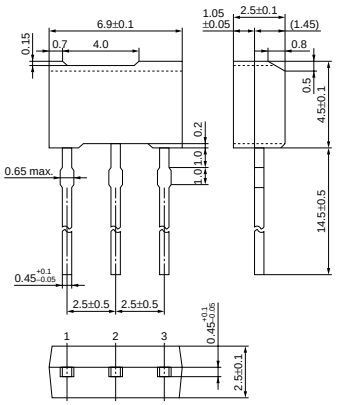
Silicon NPN triple diffusion planer type

For high voltage-withstand switching

Features

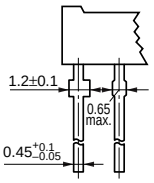
- High collector to base voltage V_{CBO}.
- High collector to emitter voltage V_{CEO}.
- Large collector power dissipation P_C.
- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit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

Unit: mm



Note: In addition to the lead type shown in the upper figure, the type as shown in the lower figure is also available.

1:Emitter
2:Collector
3:Base
MT2 Type Package



(HW type)

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

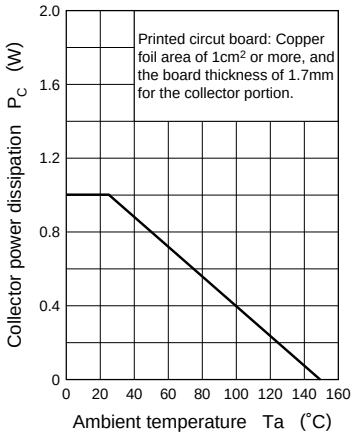
*1 Printed circuit board: Copper foil area of 1cm^2 or more, and the board thickness of 1.7mm for the collector portion

Electrical Characteristics (Ta=25˚C)

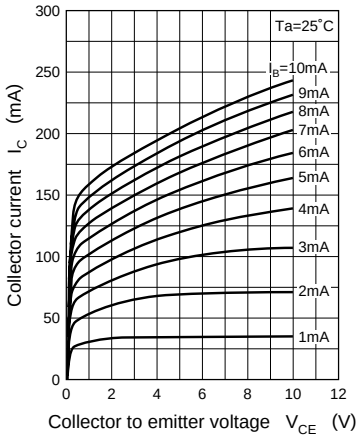
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	I_C = 100µA, I_E = 0	400			V
Collector to emitter voltage	V_{CEO}	I_C = 500µA, I_B = 0	400			V
Emitter to base voltage	V_{EBO}	I_E = 100µA, I_C = 0	5			V
Forward current transfer ratio	h_{FE}	V_{CE} = 5V, I_C = 30mA	30			–
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		0.8		µS
Storage time	t_{stg}	I_{B1} = 10mA, I_{B2} = –10mA		3.7		µS
Fall time	t_f	V_{CC} = 200V		0.6		µS

* Pulse measurement

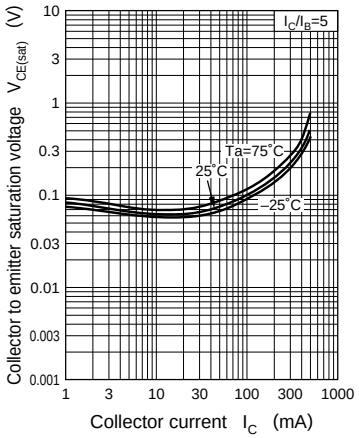
P_C — Ta



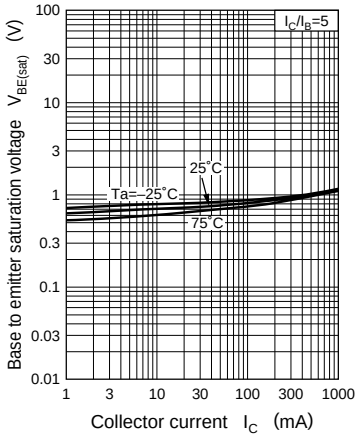
I_C — V_{CE}



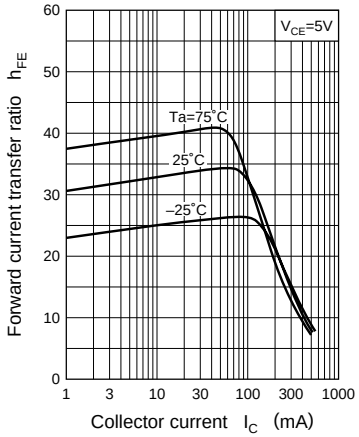
$V_{CE(sat)}$ — I_C



$V_{BE(sat)}$ — I_C



h_{FE} — I_C



C_{ob} — V_{CB}