

2SC4535 (Preliminary)

Silicon NPN Triple-Diffused Planar Darlington Type

Power Switching

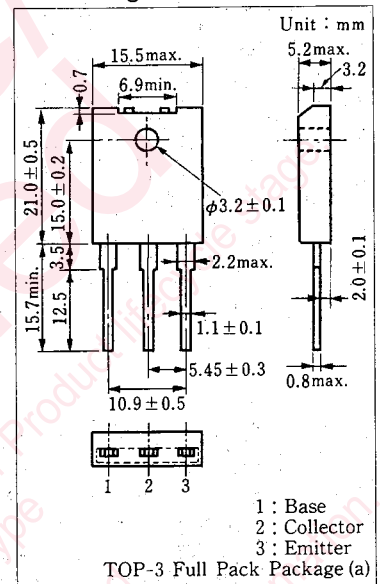
■ Features

- High speed switching

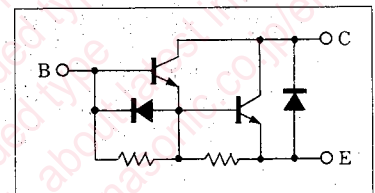
■ Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	450	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	6	V
Peak collector current	I_{CP}	30	A
Collector current	I_C	15	A
Base current	I_B	1	A
Collector power dissipation	P_C	100	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

■ Package Dimensions



■ Inner Circuit



■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CB0}	$V_{CB} = 450V, I_E = 0$			1	mA
Collector cutoff current	$V_{CEO(sus)}$	$I_C = 0.5A, L = 40mH$	400			V
Emitter-base voltage	V_{EBO}	$I_E = 200mA, I_C = 0$	6			V
DC current gain	h_{FE}	$V_{CE} = 5V, I_C = 15A$	80			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 15A, I_B = 0.4A$			2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 15A, I_B = 0.4A$			2.5	V
Transition frequency	f_T	$V_{CE} = 5V, I_C = 1A, f = 1MHz$		10		MHz
Turn-on time	t_{on}	$V_{CC} = 300V$			2	μs
Storage time	t_{stg}	$I_C = 15A$			10	μs
Collector current fall time	t_f	$I_{B1} = 0.4A, -I_{B2} = 0.4A$			3	μs
Diode forward voltage	V_{CE}	$I_C = -15A, I_B = 0$			1.5	V

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