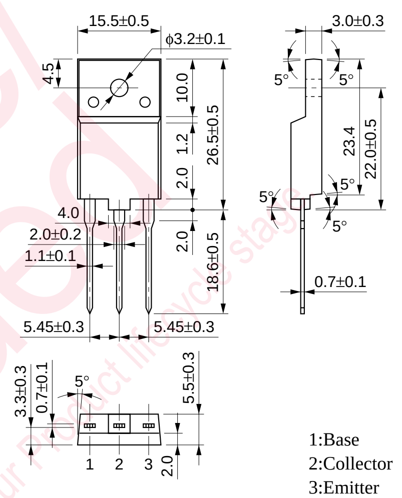
2SD2523

Silicon NPN triple diffusion mesa type

For horizontal deflection output



Features

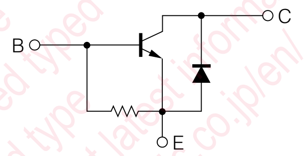
- Incorporating a built-in damper diode
- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO)
- Full-pack package with outstanding insulation, which can be installed to the heat sink with one screw

Absolute Maximum Ratings (T_C=25˚C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage		V_{CBO}	1700	V
Collector to emitter voltage		V_{CES}	1700	V
Emitter to base voltage		V_{EBO}	5	V
Collector current		I_C	6	A
Peak collector current		I_{CP}*	15	A
Peak base current		I_{BP}	4	A
Reverse peak base current		I_{BP}	–3	A
Collector power dissipation	T_C=25°C	P_C	90	W
	Ta=25°C		3	
Junction temperature		T_j	150	˚C
Storage temperature		T_{stg}	–55 to +150	˚C

*Non-repetitive peak

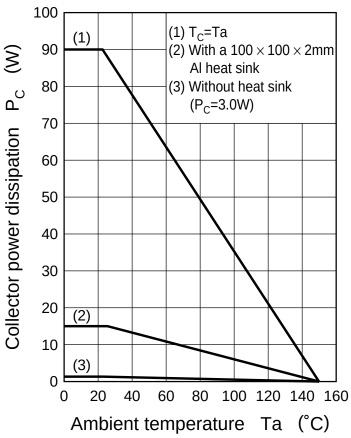
Internal Connection



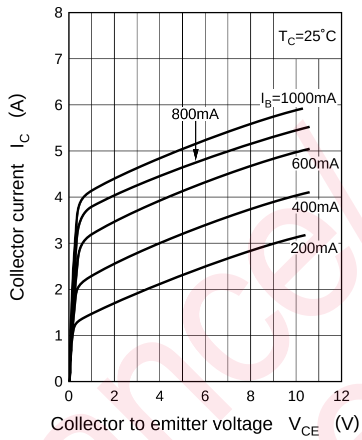
Electrical Characteristics (T_C=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 1000V, I_E = 0			50	µA
		V_{CB} = 1700V, I_E = 0			1	mA
Emitter to base voltage	V_{EBO}	I_E = 500mA, I_C = 0	5			V
Forward current transfer ratio	h_{FE1}	V_{CE} = 5V, I_C = 1A	6		25	
	h_{FE2}	V_{CE} = 5V, I_C = 5A	3		10	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 5A, I_B = 1.6A			5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = 5A, I_B = 1.6A			1.5	V
Transition frequency	f_T	V_{CE} = 10V, I_C = 0.1A, f = 0.5MHz		3		MHz
Storage time	t_{stg}	I_C = 5A, I_{Bend} = 1.6A, L_{leak} = 5µH			12	µs
Fall time	t_f				0.8	µs
Diode forward voltage	V_F	I_C = 6A, I_B = 0			–2	V

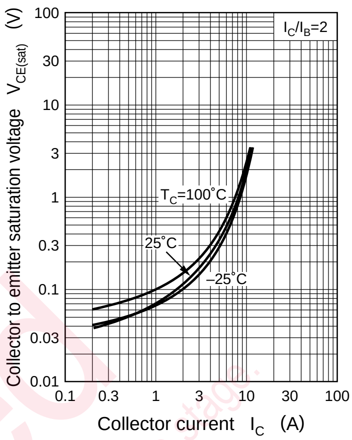
P_C — Ta



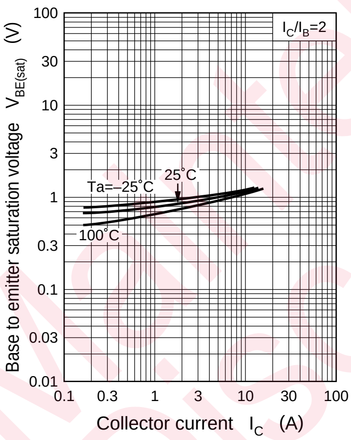
I_C — V_{CE}



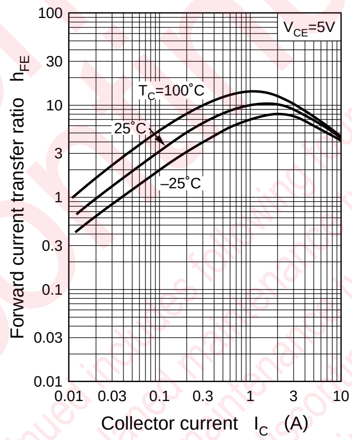
$V_{CE(sat)}$ — I_C



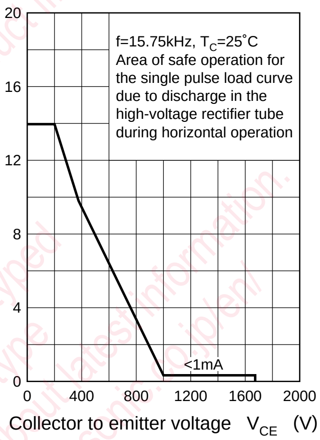
$V_{BE(sat)}$ — I_C



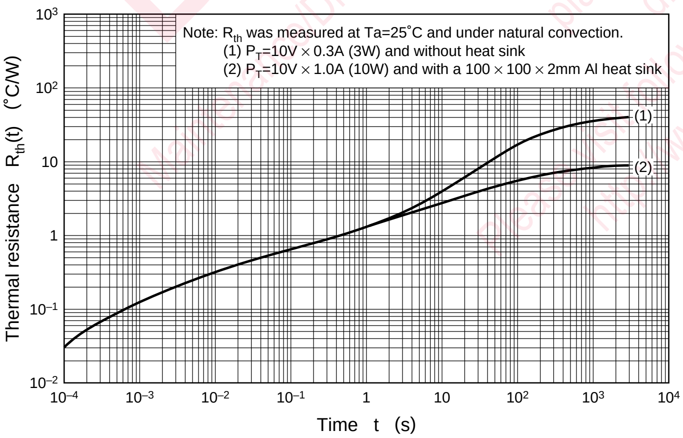
h_{FE} — I_C



Area of safe operation, horizontal operation ASO



$R_{th(t)}$ — t



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