

2SD2524

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

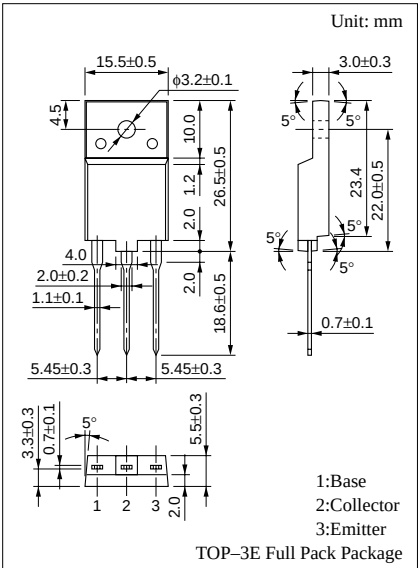
Absolute Maximum Ratings (T_C=25°C)

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	8	A
Peak collector current	I _{CP} *	20	A
Peak base current	I _{BP}	5	A
Reverse peak base current	I _{BP}	-4.5	A
Collector power dissipation	P _C	100	W
		3	
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

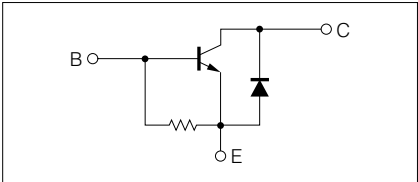
*Non-repetitive peak

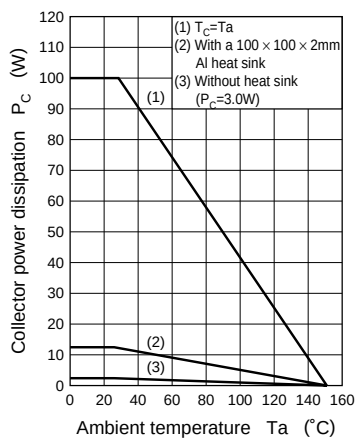
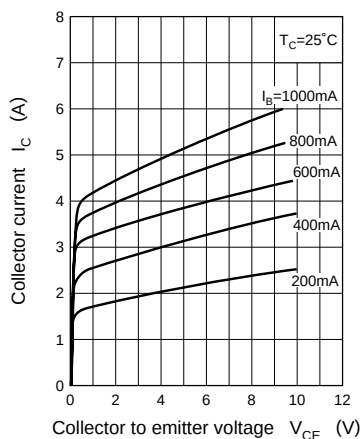
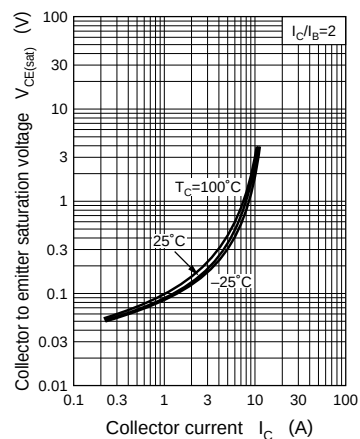
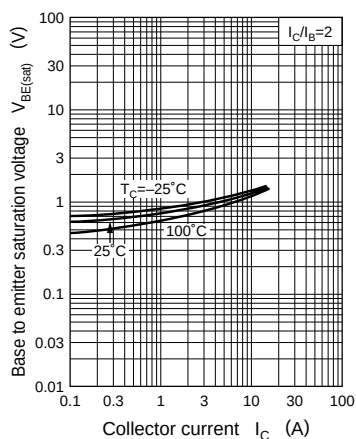
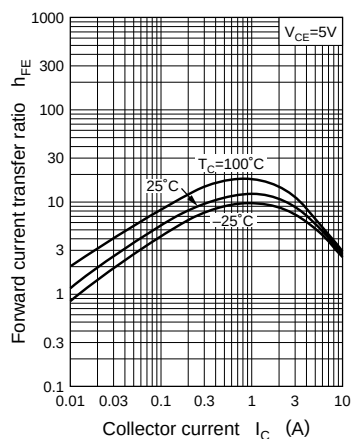
Electrical Characteristics (T_C=25°C)

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 _{FE}	V _{CE} = 5V, I _C = 6A	4		10	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 6A, I _B = 2A			3	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 6A, I _B = 2A			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 = 6A, I _{Bend} = 2A, L _{leak} = 5μH			12	μs
Fall time	t _f				0.8	μs
Diode forward voltage	V _F	I _C = 8A, I _B = 0			-2	V

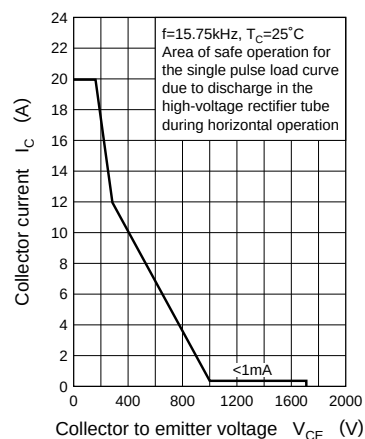


Internal Connection



$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$ 

Area of safe operation, horizontal operation ASO

 $R_{th(t)} - t$ 