

2SD1632

Silicon NPN Triple-Diffused Junction Mesa Type

Horizontal Deflection Output

■ Features

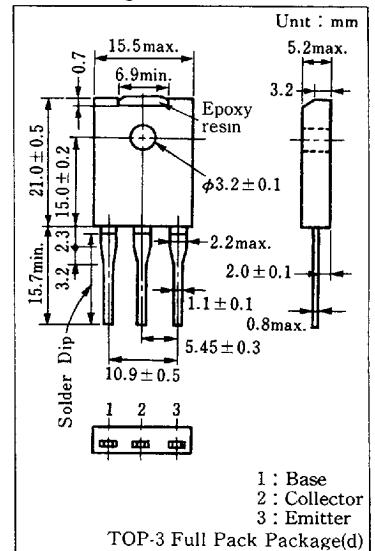
- Damper diode built-in
- High breakdown voltage and high reliability by glass passivation
- High speed switching
- Wide area of safety operation (ASO)
- "Full Pack" package for simplified mounting on a heat sink with one screw

■ Absolute Maximum Ratings (Tc=25°C)

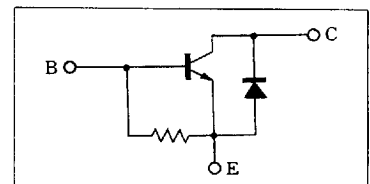
Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	1500	V
Collector-emitter voltage	V_{CES}	1500	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	4	A
Peak collector current	I_{CP}^*	15	A
Peak base current	I_{BP}	3.5	A
Reverse peak base current	I_{BP}	-2.5	A
Collector power dissipation	$T_c = 25^\circ\text{C}$	P_C	W
	$T_a = 25^\circ\text{C}$	70	
Junction temperature	T_J	130	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +130	$^\circ\text{C}$

* Non-repetitive peak value

■ Package Dimensions



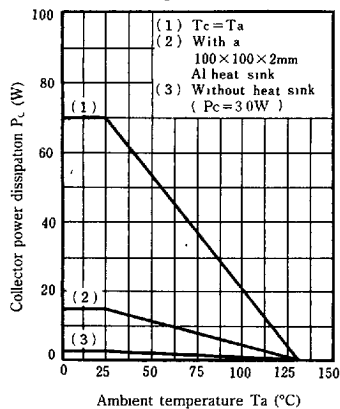
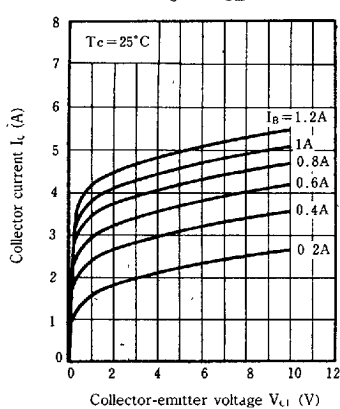
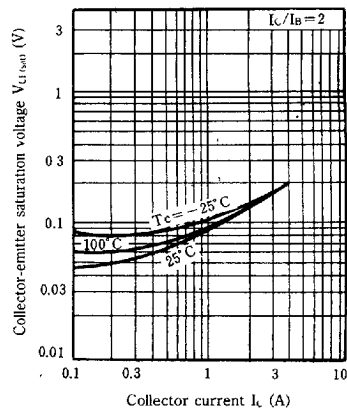
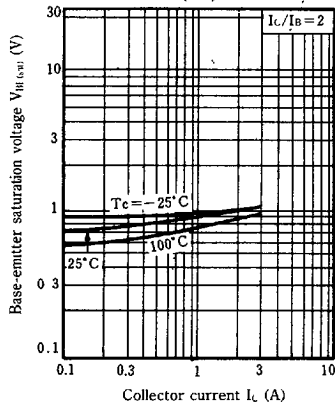
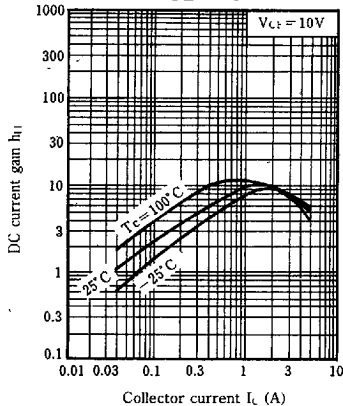
■ Inner Circuit



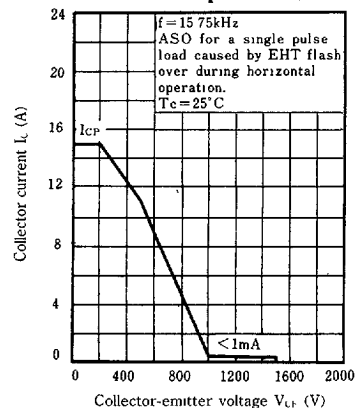
■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CB0}	$V_{CB} = 750\text{ V}, I_E = 0$			50	μA
		$V_{CB} = 1500\text{ V}, I_E = 0$			1	mA
Emitter-base voltage	V_{EBO}	$I_E = 500\text{ mA}, I_C = 0$	5			
DC current gain	h_{FE}	$V_{CE} = 10\text{ V}, I_C = 3\text{ A}$	5		15	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3\text{ A}, I_B = 1\text{ A}$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 3\text{ A}, I_B = 1\text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE} = 10\text{ V}, I_C = 1\text{ A}, f = 0.5\text{ MHz}$		2		MHz
Fall time	t_f	$I_C = 3\text{ A}, I_{Bend} = 1\text{ A}$			0.75	μs
Storage time	t_{stg}	$L_{leak} = 5\mu\text{H}$	4		9	μs
Diode forward voltage	V_F	$I_C = -4\text{ A}, I_B = 0$			-2.2	V

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

Area of safe operation (ASO)

 $R_{th(t)} - t$ 