



2SD2600 — NPN Triple Diffused Planar Silicon Darlington Transistor

Driver Applications

Applications

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

Features

- High DC current gain.
- Large current capacity and wide ASO.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		110	V
Collector-to-Emitter Voltage	V_{CEO}		100	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		8	A
Collector Current (Pulse)	I_{CP}		12	A
Collector Dissipation	P_C	$T_c=25^\circ\text{C}$	35	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CB0}	$V_{CB}=80\text{V}, I_E=0\text{A}$			0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0\text{A}$			3.0	mA
DC Current Gain	h_{FE}	$V_{CE}=3\text{V}, I_C=4\text{A}$	1500	4000		
Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=4\text{A}$		20		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=4\text{A}, I_B=8\text{mA}$		0.9	1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE}(\text{sat})$	$I_C=4\text{A}, I_B=8\text{mA}$			2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=5\text{mA}, I_E=0\text{A}$	110			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, R_{BE}=\infty$	100			V
Turn-ON Time	t_{on}	See specified test circuit.		0.6		μs
Storage Time	t_{stg}	See specified test circuit.		4.8		μs
Fall Time	t_f	See specified test circuit.		1.6		μs

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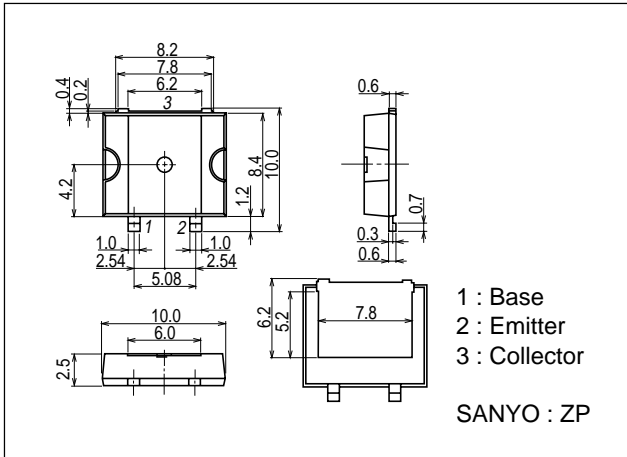
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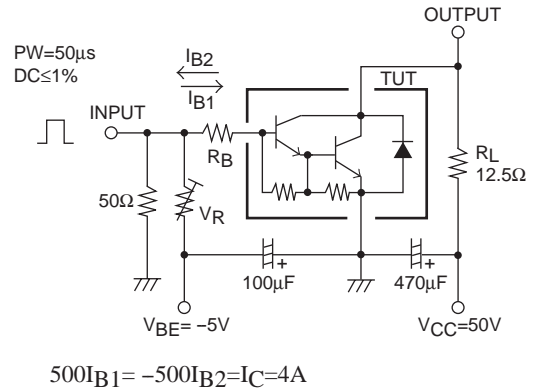
Package Dimensions

unit : mm (typ)

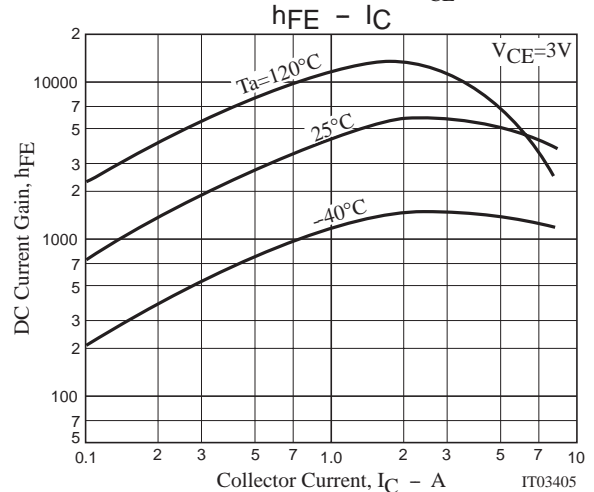
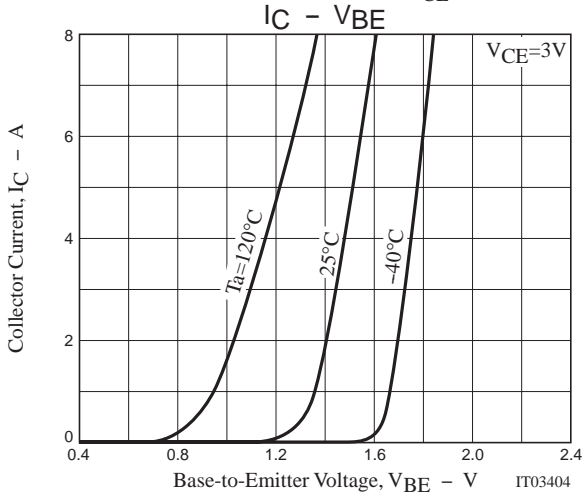
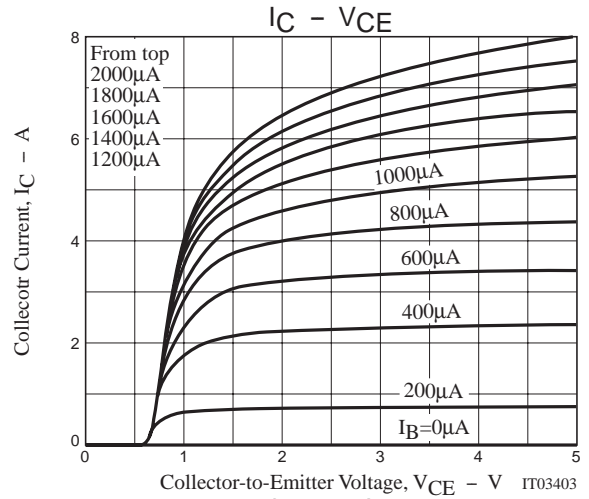
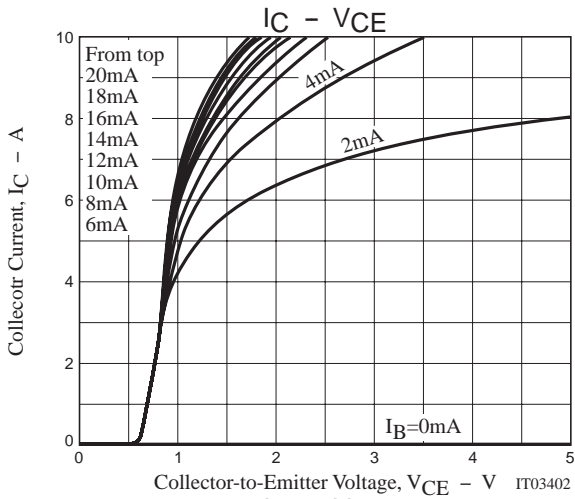
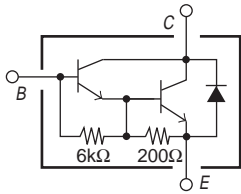
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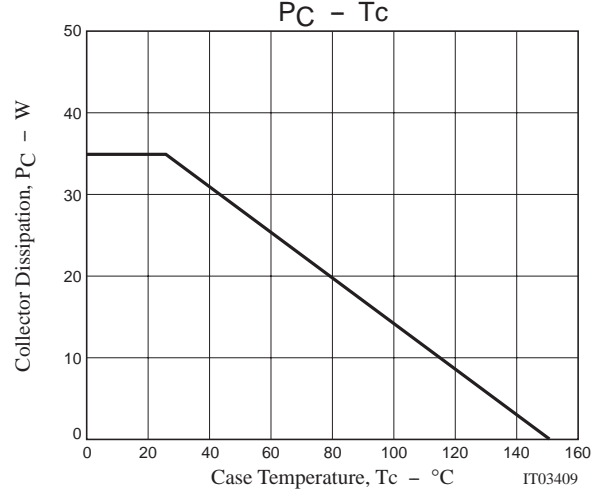
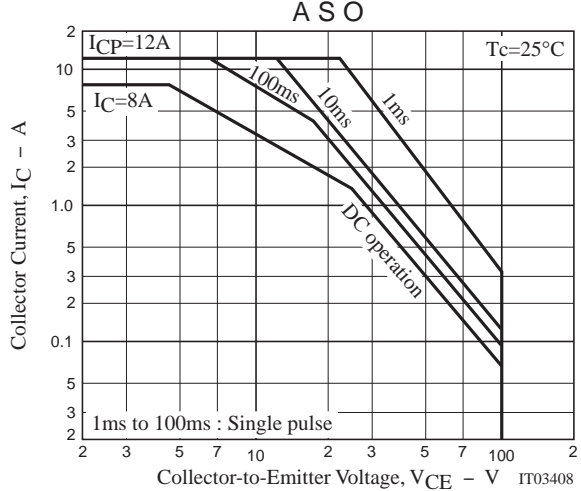
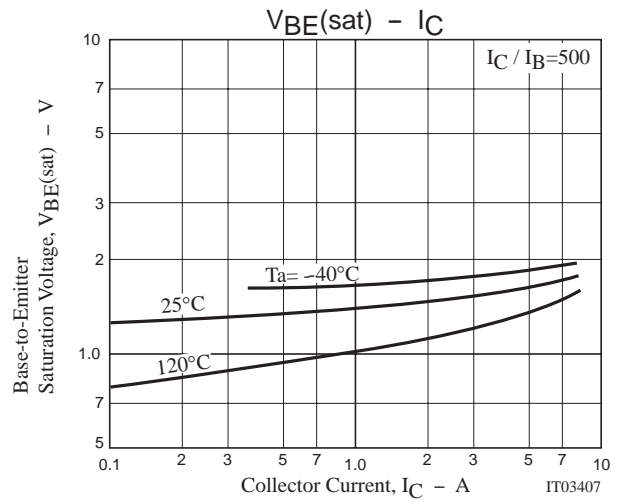
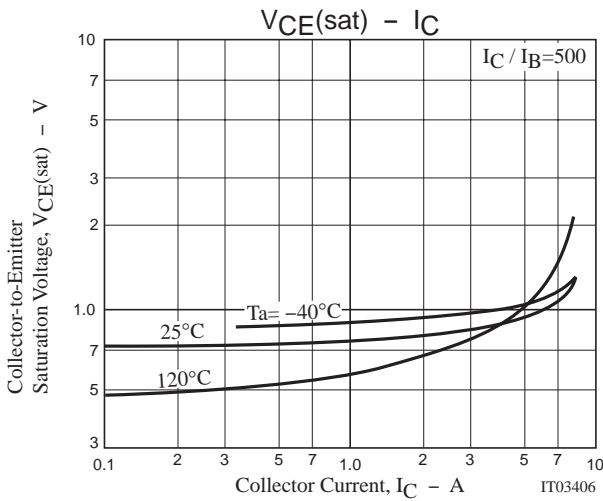
Switching Time Test Circuit



Electrical Connection



2SD2600



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