Ordering number:ENN6352

NPN Triple Diffused Planar Silicon Transistor

2SD2629

Color TV Horizontal Deflection Output Applications

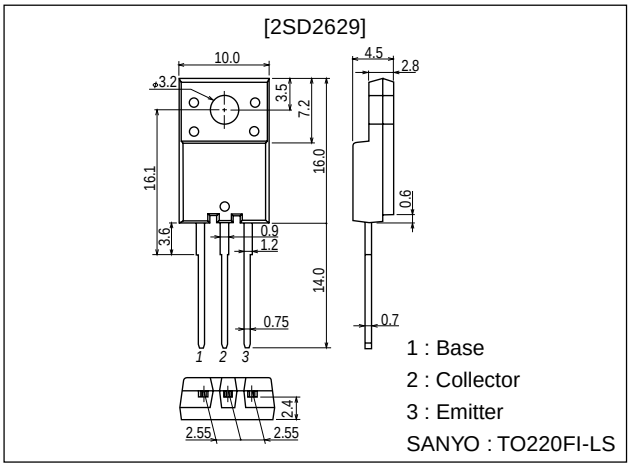
Features

- High speed.
- High breakdown voltage (V_{CBO}=1500V).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.
- On-chip damper diode.

Package Dimensions

unit:mm

2079C



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1500	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		6	A
Collector Current (pulse)	I_{CP}		15	A
Collector Dissipation	P_C		2.0	W
		Tc=25˚C	35	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=800V, I_E=0			10	μA
Collector Cutoff Current	I_{CES}	V_{CE}=1500V, R_{BE}=0			1.0	mA
Collector Sustain Voltage	V_{CEO}(sus)	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0	40		130	mA
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=3.5A, I_B=0.7A			5	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=3.5A, I_B=0.7A			1.5	V

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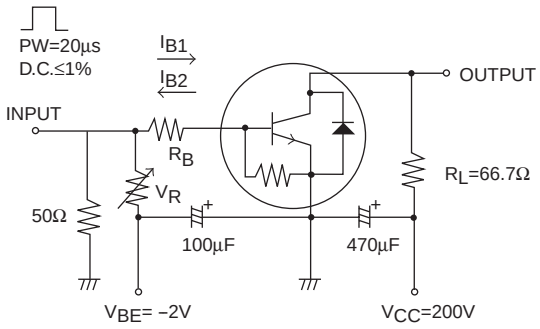
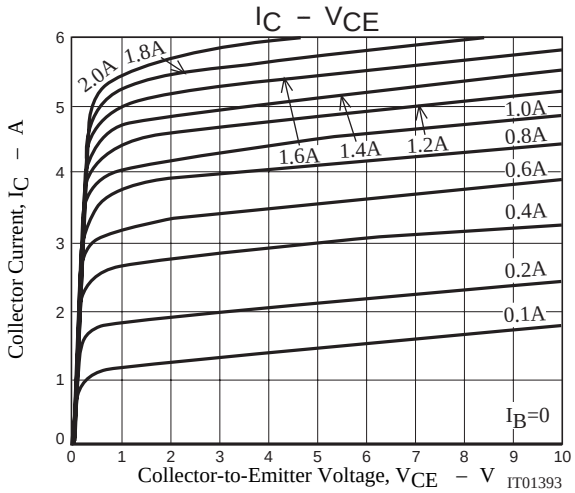
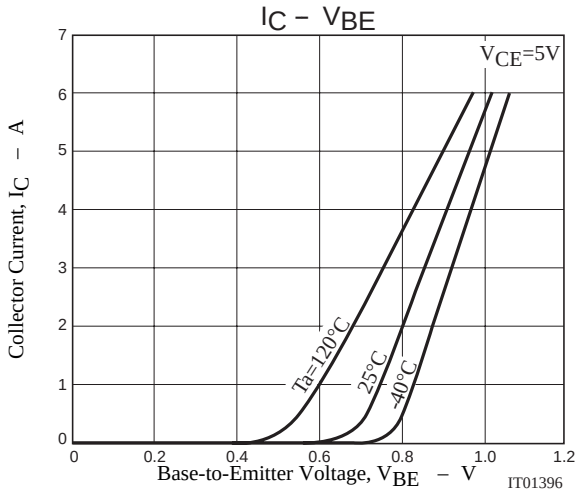
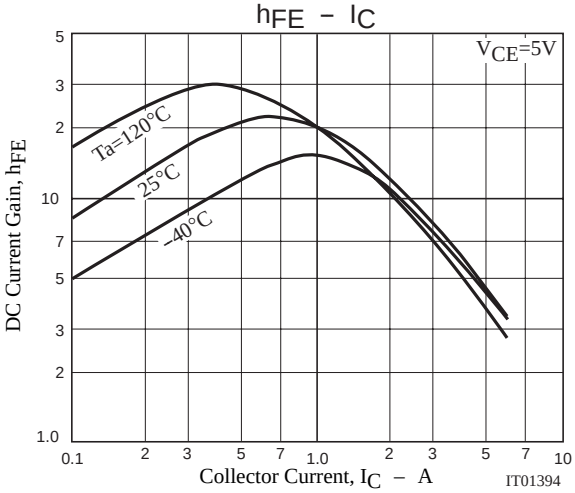
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=0.5A	15		30	
	$h_{FE}2$	V_{CE}=5V, I_C=3.5A	5		8	
Fall Time	t_f	I_C=3A, I_{B1}=0.6A, I_{B2}=–1.2A			0.3	μs

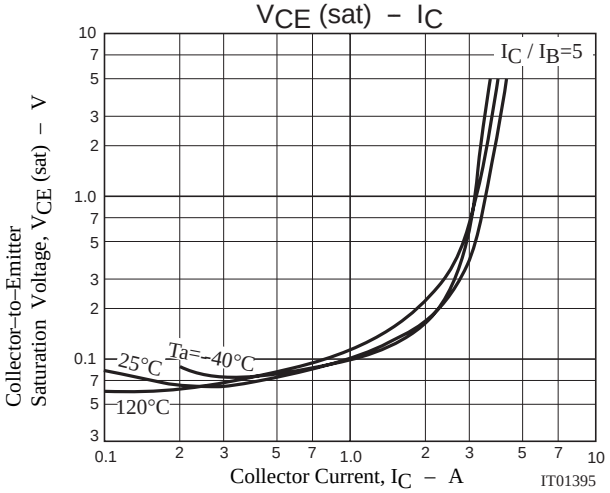
Switching Time Test Circuit



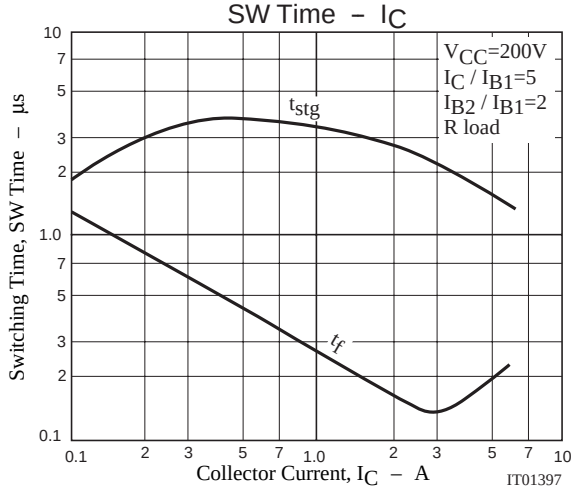




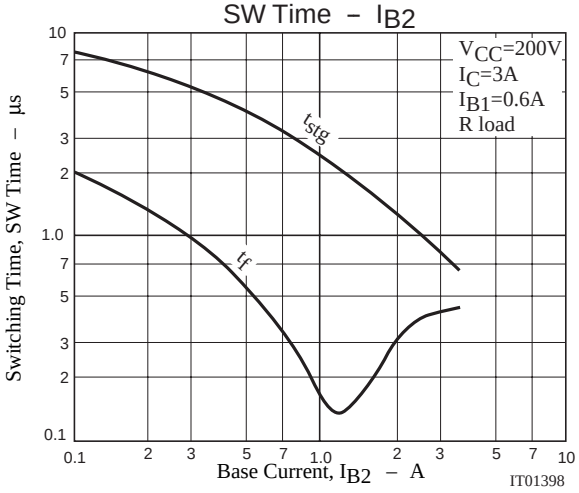




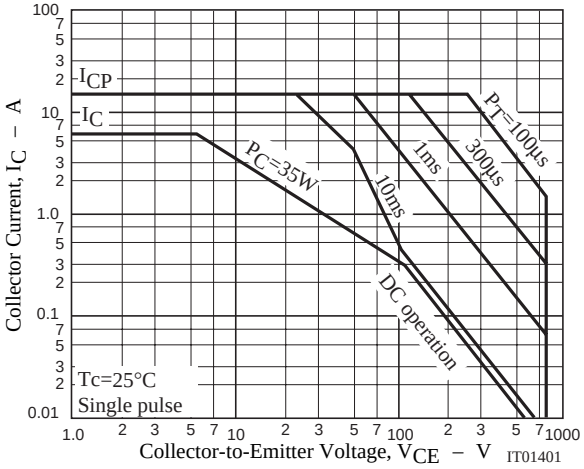
SW Time – I_C



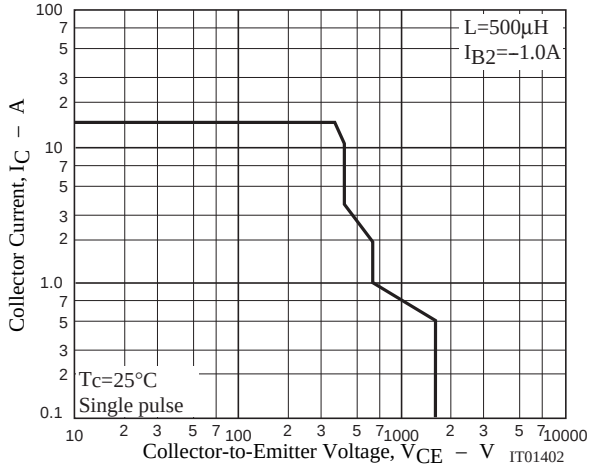
SW Time – I_{B2}



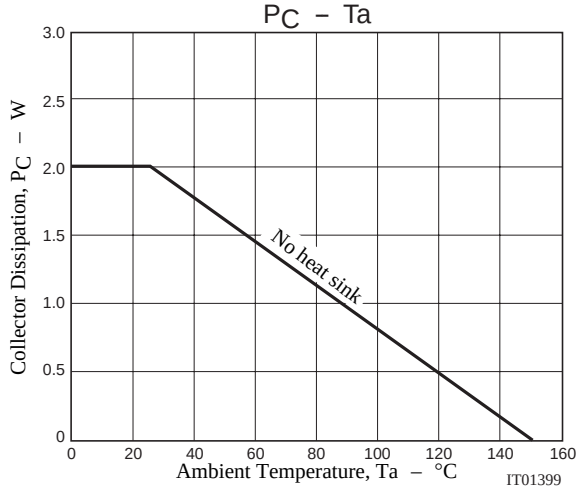
Forward Bias ASO



Reverse Bias ASO



P_C – Ta



P_C – Tc