Ordering number : ENN7614

NPN Triple Diffused Planar Silicon Transistor

2SC5967

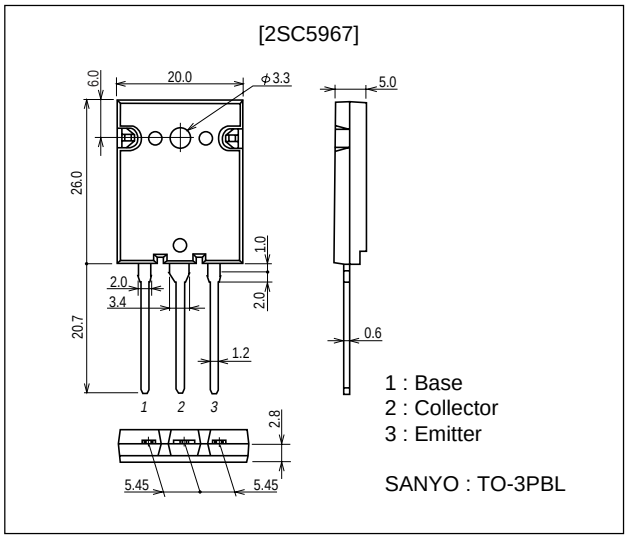
Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

Features

- High-speed.
- High breakdown voltage (V_{CBO}=1700V).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

Package Dimensions

unit : mm
2048B



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1700	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		20	A
Collector Current (Pulse)	I_{CP}		40	A
Collector Dissipation	P_C		3.5	W
		Tc=25°C	180	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
	I_{CES}	V_{CE}=1700V, R_{BE}=0			1.0	mA
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=10mA, R_{BE}=∞	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			1.0	mA

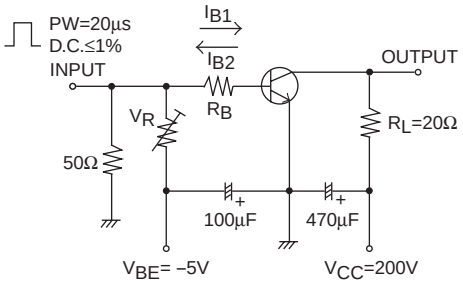
Continued on next page.

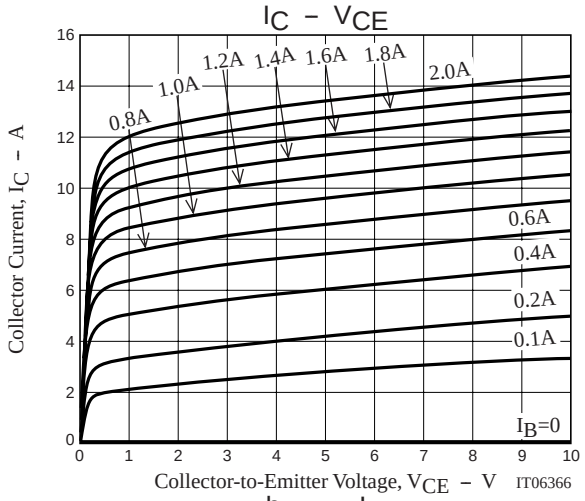
SANYO Electric Co.,Ltd. Semiconductor Company
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

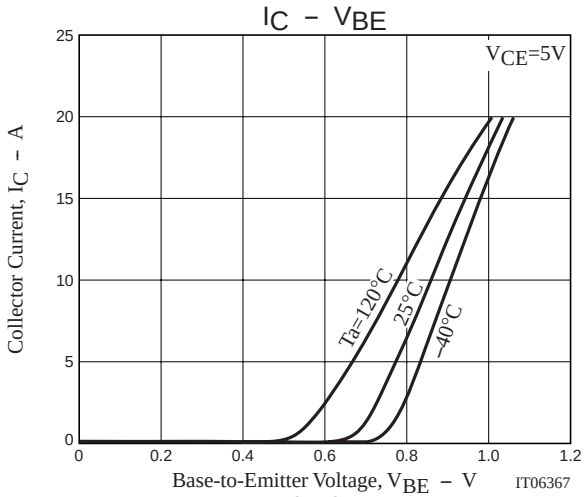
Continued from preceding page.

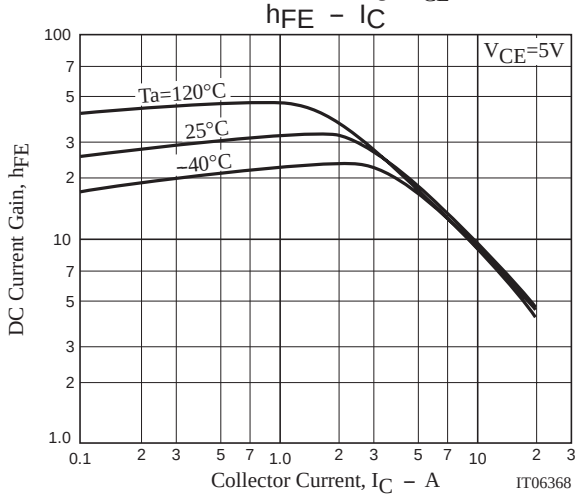
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1A	15			
	$h_{FE}2$	V_{CE}=5V, I_C=15A	4		7	
Collectoe-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=13.5A, I_B=3.4A			3	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=13.5A, I_B=3.4A			1.5	V
Storage Time	t_{stg}	I_C=10A, I_{B1}=1.6A, I_{B2}=−5.0A			3.0	μs
Fall Time	t_f	I_C=10A, I_{B1}=1.6A, I_{B2}=−5.0A			0.2	μs

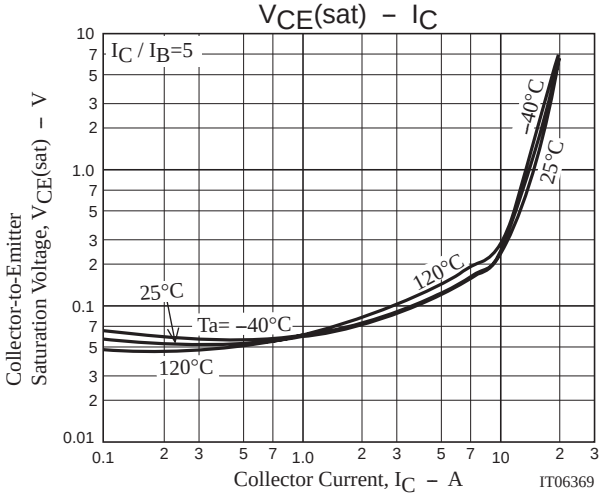
Switching Time Test Circuit



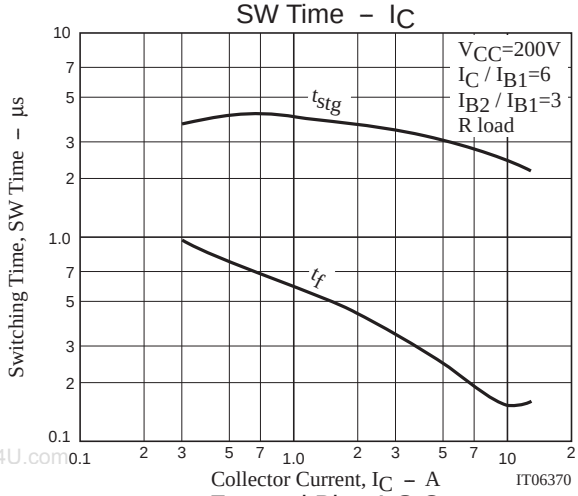




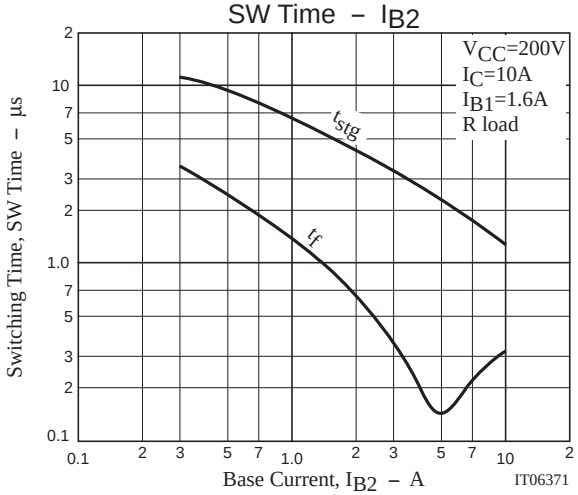




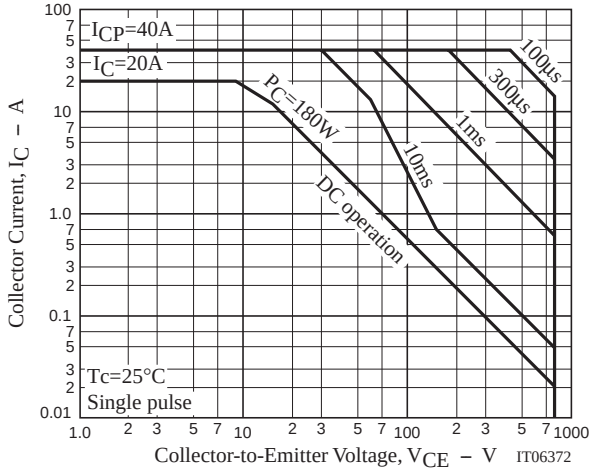
SW Time – I_C



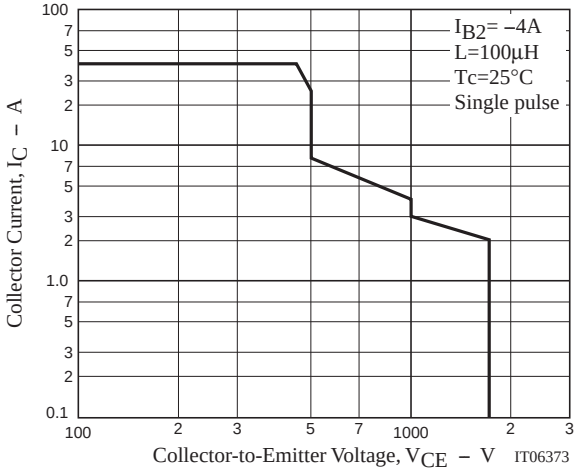
SW Time – I_{B2}



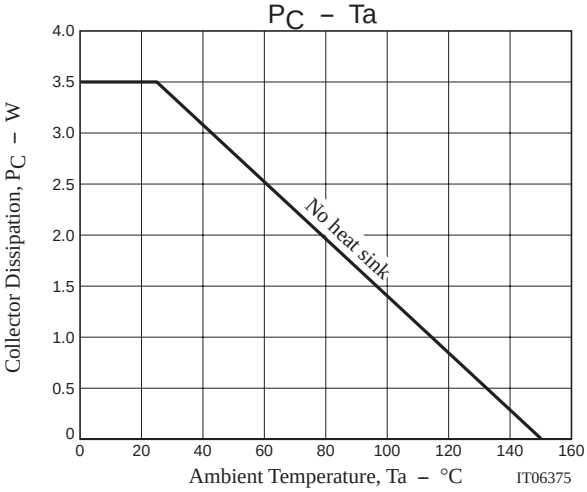
Forward Bias A S O



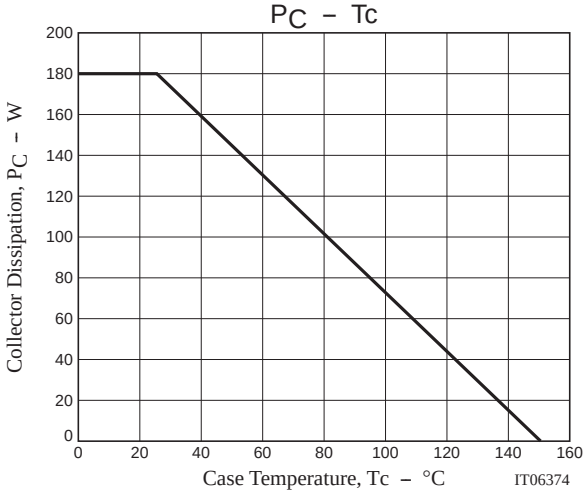
Reverse Bias A S O



P_C – Ta



P_C – Tc



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