Ordering number : EN3971

NPN Epitaxial Planar Silicon Transistor

2SD1908

CRT Display Horizontal Deflection Output Applications

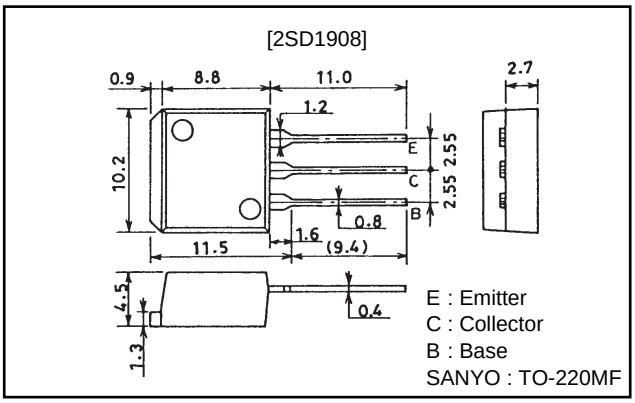
Features

- Fast switching speed.
- Especially suited for use in high-definition CRT display : V_{CC}=6 to 12V.
- Wide ASO and highly resistant to breakdown.

Package Dimensions

unit: mm

2049B-TO-220MF



Specifications

Absolute Maximum Ratings at Ta=25°C

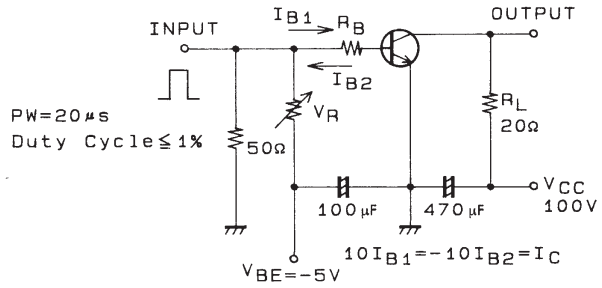
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		330	V
Collector-to-Emitter Voltage	V_{CEO}		150	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		7	A
Collector Current (Pulse)	I_{CP}		12	A
Base Current	I_B		4	A
Collector Dissipation	P_C		1.65	W
		Tc=25°C	50	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		–55 to +150	°C

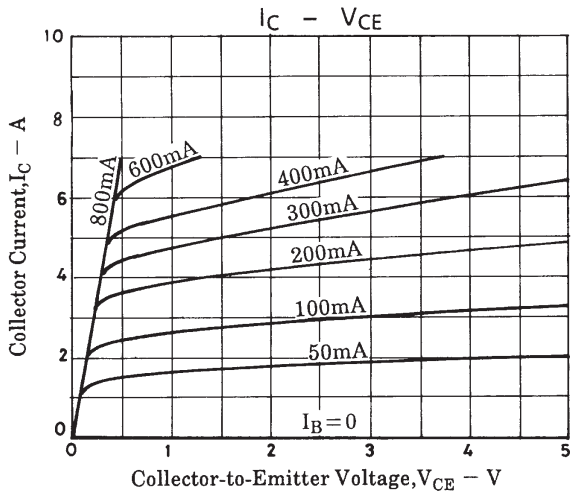
Electrical Characteristics at Ta=25°C

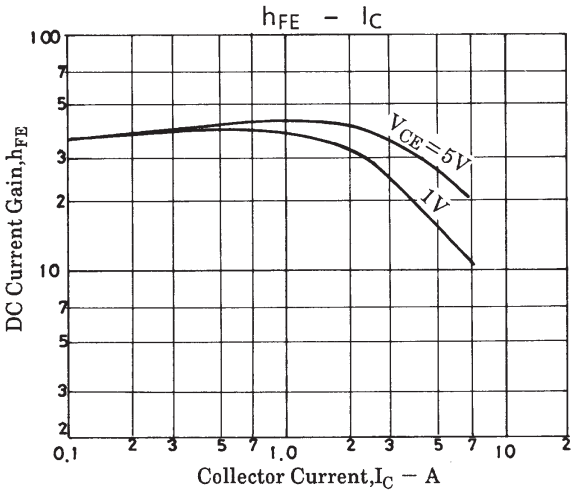
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=200V, I_E=0			100	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			100	mA
DC Current Gain	$h_{FE(1)}$	V_{CE}=1V, I_C=1A	15			
	$h_{FE(2)}$	V_{CE}=1V, I_C=5A	10		50	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=0.5A	10	40		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=5A, I_B=0.5A			1	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=5A, I_B=0.5A			1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	330			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	150			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=1mA, I_C=0	6			V
Fall Time	t_f	I_C=5A, I_{B1}=–I_{B2}=0.5A			0.5	μs

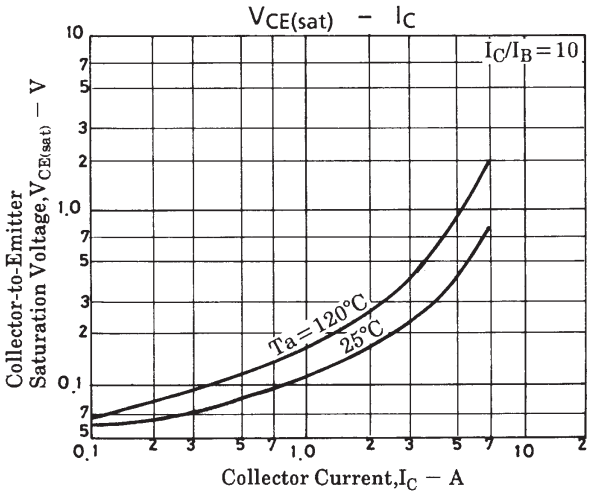
SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

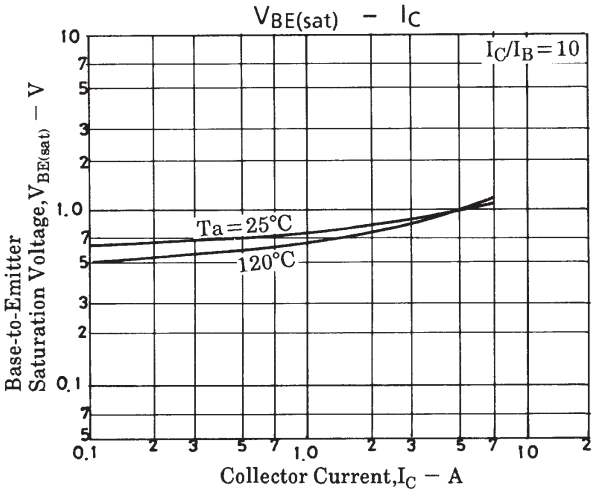
Switching Time Test Circuit

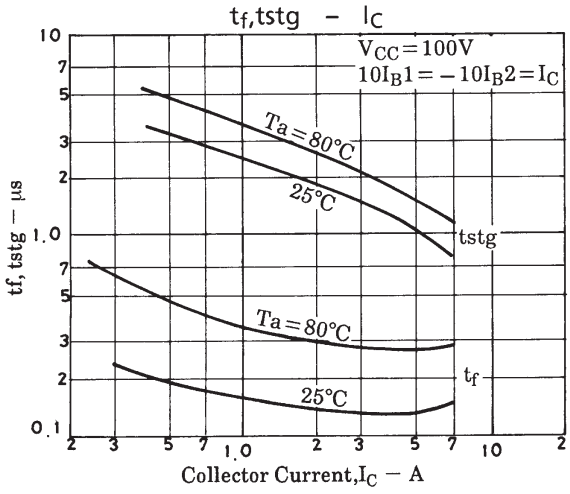


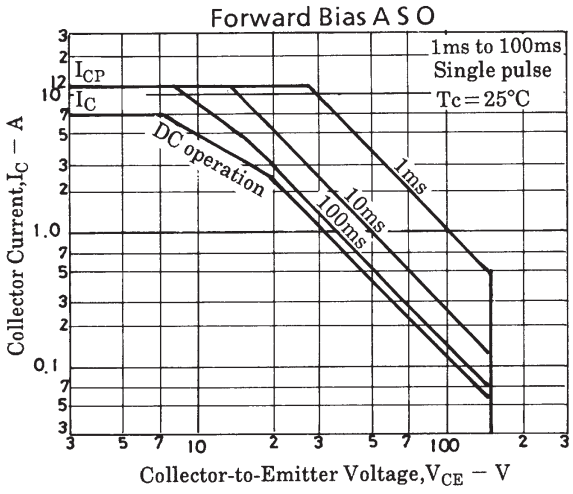


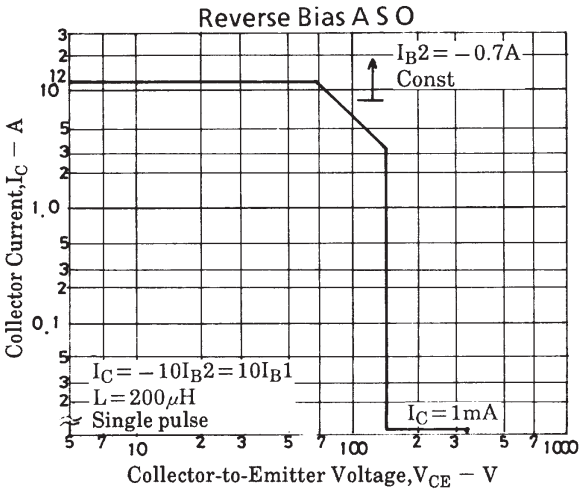


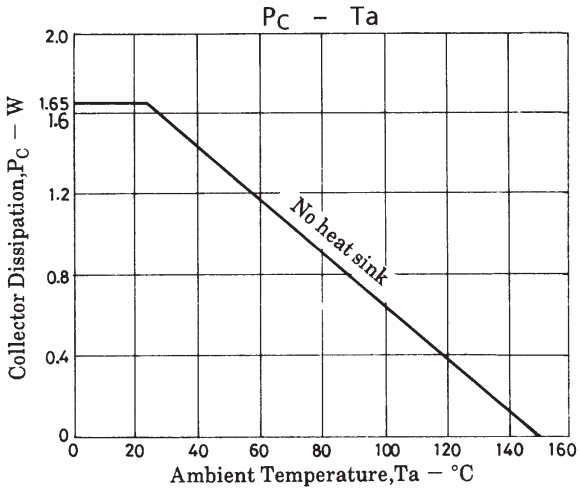


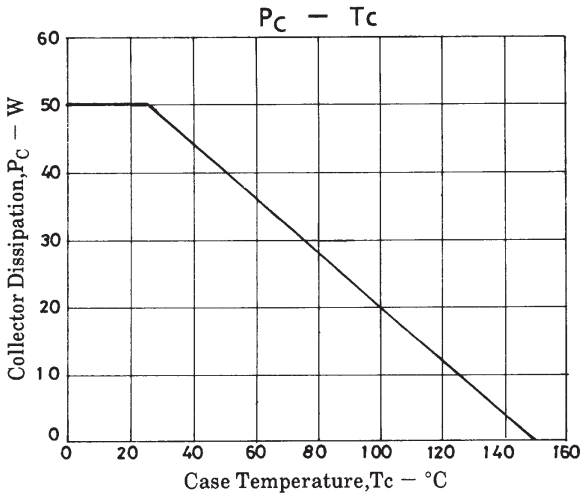












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