Ordering number : EN5293

NPN Triple Diffused Planar Silicon Transistor

2SC5299

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

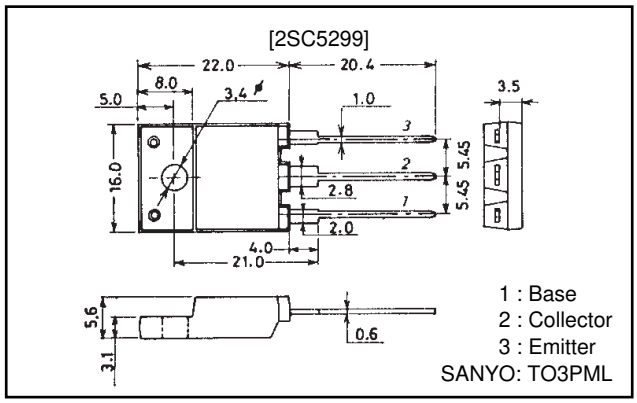
Features

- High Speed : t_f=100ns typ.
- High Breakdown voltage : V_{CBO}=1500V.
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

Package Dimensions

unit: mm

2039C-TO3PML



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		10	A
Collector Current (Pulse)	I_{CP}		25	A
Collector Dissipation	P_C		3.0	W
		Tc=25°C	70	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			1.0	mA
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=8A, I_B=2A			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=8A, I_B=2A			1.5	V
DC Current Gain	$h_{FE(1)}$	V_{CE}=5V, I_C=1A	20		30	
	$h_{FE(2)}$	V_{CE}=5V, I_C=8A	4		7	
Storage Time	t_{stg}	I_C=6A, I_{B1}=1.2A, I_{B2}=–2.4A			3.0	μs
Fall Time	t_f	I_C=6A, I_{B1}=1.2A, I_{B2}=–2.4A		0.1	0.2	μs

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Switching Time Test Circuit