Ordering number:EN2427A

NPN Triple Diffused Planar Silicon Transistor

2SD1880

Color TV Horizontal Deflection Output Applications

Applications

· Color TV horizontal diflection output.
· Color display horizontal deflection output.

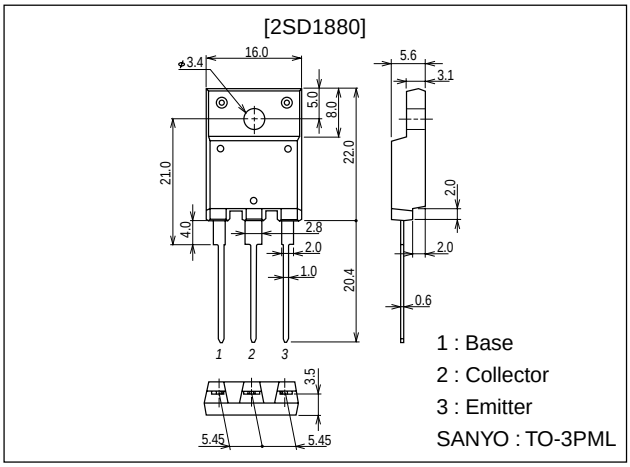
Features

· High speed (t_f=100ns).
· High breakdown voltage (V_{CBO}=1500V).
· High reliability (adoption of HVP process).
· On-chip damper diode.

Package Dimensions

unit:mm

2039D



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		8	A
Collector Current (Pulse)	I_{CP}		30	A
Collector Dissipation	P_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_{CES}	V_{CE}=1500V			1.0	mA
	I_{CBO}	V_{CB}=800V			10	μA
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V	40		130	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=6A, I_B=1.2A			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=6A, I_B=1.2A			1.5	V
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1A	8			
	$h_{FE}2$	V_{CE}=5V, I_C=6A	5		10	
Diode Forward Voltage	V_F	I_{EC}=8A			2.0	V
Fall Time	t_f	I_C=6A, I_{B1}=1.2A, I_{B2}=–2.4A		0.1	0.3	μs

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Switching Time Test Circuit

PW = 20μs, duty ≦ 1%