NPN Triple Diffused Planar Silicon Transistor

2SD1159



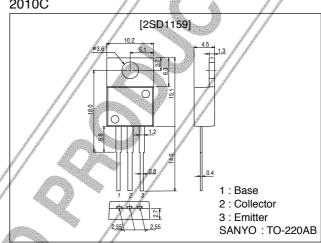
TV Horizontal Deflection Output, High-Current Switching Applications

Features

 \cdot Capable of efficient drive with small internal loss due to excellent $t_{f}.$

Package Dimensions

unit:mm 2010C



Specifications

Absolute Maximum Ratings at $Ta = 25^{\circ}C$

Parameter	Symbol	Ratings	Unit
Collector-to-Base Voltage	VCBO	200	V
Collector-to-Emitter Voltage	VCEO	60	V
Emitter-to-Base Voltage	V _{EBO}	6	V
Collector Current	lc l	4.5	A
Collector Current (Pulse)	ICP	10	A
Collector Dissipation	P _C Tc=25°C	40	w
Junction Temperature	j j j	150	°C
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit	
T arameter	Gynnool		Conditions	min	typ	max	Onin
Collector Cutoff Current	Сво	V _{CB} =40V, I _E =0				0.1	mA
Emitter Cutoff Current	IEBO	V _{EB} =5V, I _C =0				0.1	mA
DC Current Gain	h _{FE} 1	V _{CE} =5V, I _C =1A		30		160	
	hFE2	V _{CE} =5V, I _C =4A		25			
Gain-Bandwidth Product	fr	V _{CE} =5V, I _C =1A			10		MHz
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =4A, I _B =0.4A			0.5	1.0	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =4A, I _B =0.4A				1.5	V

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =5mA, I _E =0	200			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =5mA, R _{BE} =∞	60			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =5mA, I _C =0	6			V
Fall Time	t _f	See specified Test Circuit.		0.2	0.5	μs

Specified Test Circuit

