

Silicon NPN Power Transistors

2SD1163,2SD1163A

DESCRIPTION

h TO-220 package
 ·Low collector saturation voltage

·Wit

APPLICATIONS

·TV horizontal deflection output,

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

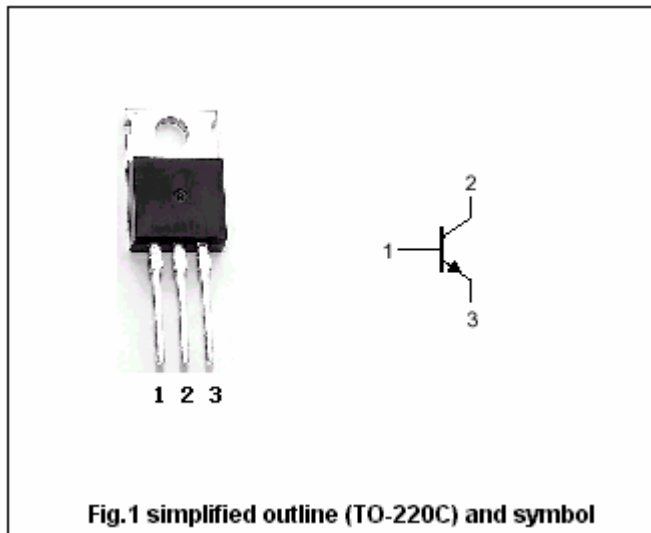


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SD1163	300	V
		2SD1163A	350	
V _{CEO}	Collector-emitter voltage	2SD1163	120	V
		2SD1163A	150	
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current		7	A
I _{CM}	Collector current-peak		10	A
I _{C(surge)}	Collector current-surge		20	A
P _C	Collector power dissipation	T _C =25°C	40	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SD1163	I _C =10mA ; R _{BE} =∞	120			V
		2SD1163A		150			
V _{(BR)EBO}	Emitter-base breakdown voltage		I _E =10mA ; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	2SD1163	I _C =5A, I _B =0.5A			2.0	V
		2SD1163A				1.0	
V _{BEsat}	Base-emitter saturation voltage		I _C =5A, I _B =0.5A			1.2	V
I _{CBO}	Collector cut-off current	2SD1163	V _{CB} =300V; I _E =0			5	mA
		2SD1163A	V _{CB} =350V; I _E =0			5	mA
h _{FE}	DC current gain		I _C =5A ; V _{CE} =5V	25			

Switching times

t _f	Fall time	I _{CM} =3.5A; I _{B1} =0.45A			0.5	μs
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PACKAGE OUTLINE

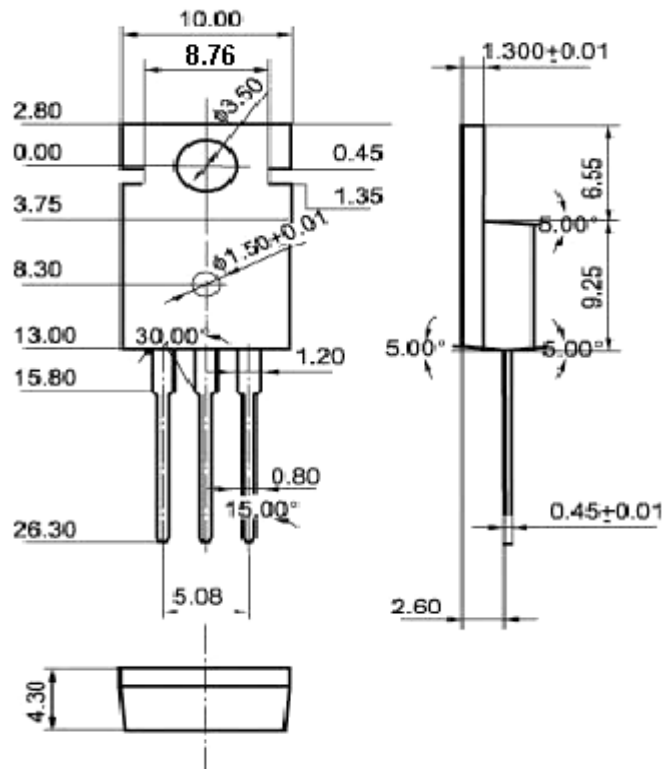


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)