

Pb Free Plating Product

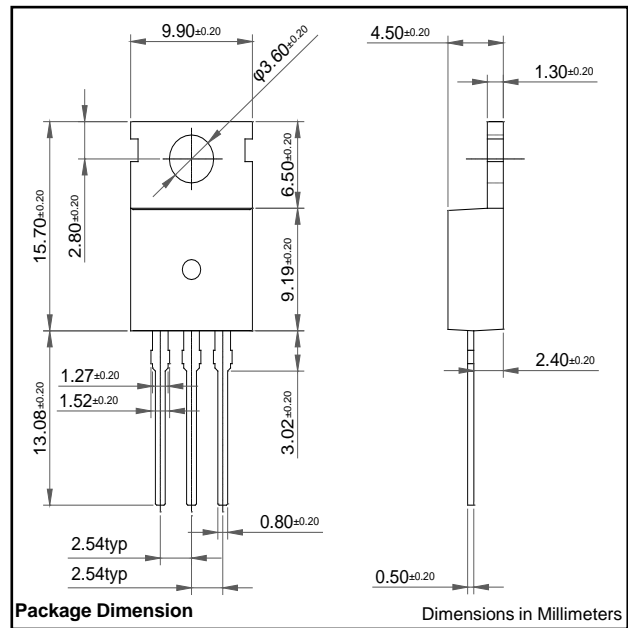
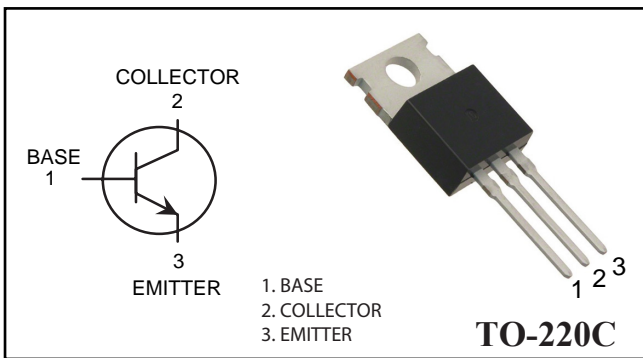
## 2SD1163/2SD1163A



### NPN Silicon Epitaxial Power Transistor

#### FEATURES:

- \* Medium Power Linear Switching Applications
- \* Low collector saturation voltage
- TV horizontal deflection output



#### Absolute maximum ratings (Ta=25 )

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

## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

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

### Switching times

t <sub>f</sub>	Fall time	I <sub>CM</sub> =3.5A; I <sub>B1</sub> =0.45A			0.5	μs
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