Silicon NPN Power Transistors 2SC2831 2SC2831A

DESCRIPTION

·With TO-220 package
·Low collector saturation voltage
·High V_{CBO}
·High speed switching

APPLICATIONS

·For high speed switching applications

PINNING

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

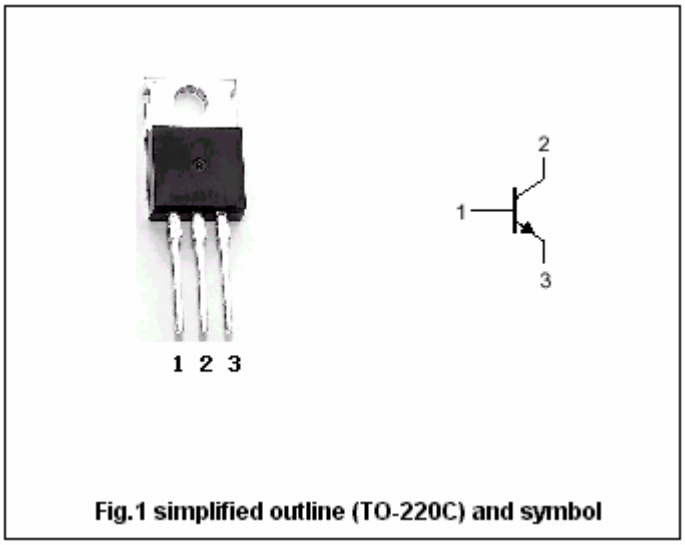


Fig.1 simplified outline (TO-220C) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC2831	Open emitter	800	V
		2SC2831A		900	
V_{CEO}	Collector-emitter voltage		Open base	500	V
V_{EBO}	Emitter-base voltage		Open collector	8	V
I_C	Collector current			1.5	A
I_{CM}	Collector current-peak			3	A
I_B	Base current			0.5	A
P_C	Collector power dissipation		T_C=25□	25	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-55~150	□

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage		I_C=0.2A; L=25mH	500			V
$V_{CE(sat)}$	Collector-emitter saturation voltage		I_C=1A; I_B=0.2A			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage		I_C=1A; I_B=0.2A			1.5	V
I_{CBO}	Collector cut-off current	2SC2831	V_{CB}=800V;I_E=0			100	μA
		2SC2831A	V_{CB}=900V;I_E=0				
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			100	μA
h_{FE-1}	DC current gain		I_C=0.1A ; V_{CE}=5V	15			
h_{FE-2}	DC current gain		I_C=1A ; V_{CE}=5V	8			
f_T	Transition frequency		I_C=0.2A ; V_{CE}=10V		2.5		MHz
Switching times							
t_{on}	Turn-on time	2SC2831	I_C=1A ; I_{B1}=-I_{B2}=-0.2A V_{CC}=200V			1.0	μs
		2SC2831A				1.2	
t_{stg}	Storage time					3.0	μs
t_f	Fall time	2SC2831				1.0	μs
		2SC2831A				1.2	

PACKAGE OUTLINE

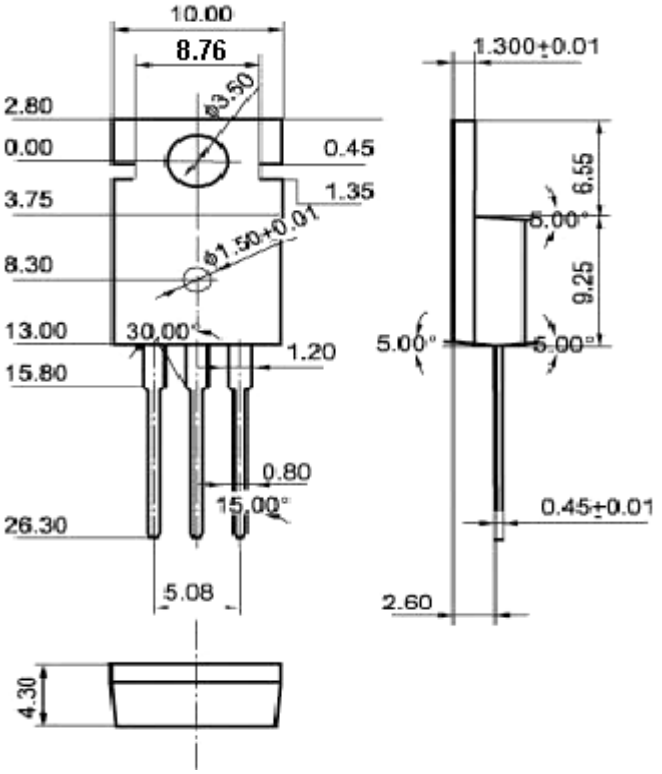


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)