

Silicon NPN Power Transistors

2SC1863

DESCRIPTION

- With TO-66 package
- Continuous collector current- $I_C=7A$
- Power dissipation $-P_C=40W$ @ $T_C=25^{\circ}C$

APPLICATIONS

- Designed for general-purpose amplifier and switching applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

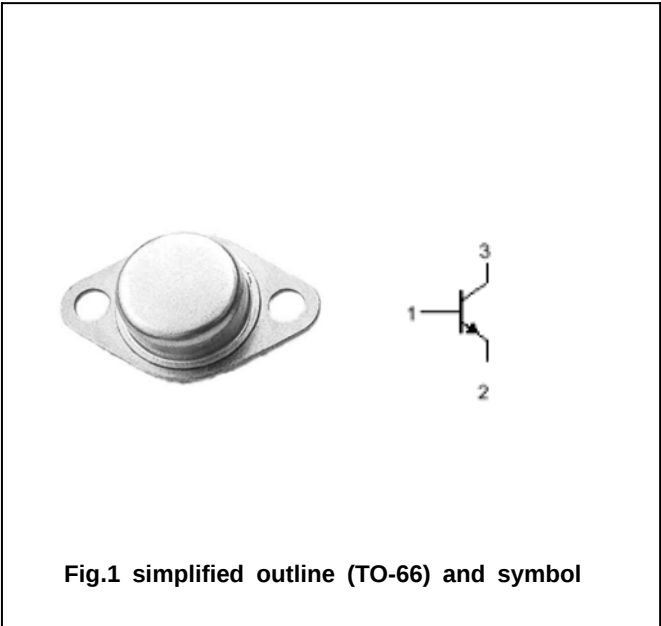


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		7	A
P_T	Total power dissipation	$T_C=25^{\circ}C$	40	W
T_j	Junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-55~150	$^{\circ}C$

Silicon NPN Power Transistors**2SC1863****CHARACTERISTICS** $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=100\text{mA}$; $I_B=0$	100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1\text{mA}$; $I_C=0$	7			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=1\text{A}$; $I_B=0.1\text{A}$			0.5	V
V_{BE}	Base-emitter on voltage	$I_C=1\text{A}$; $V_{CE}=2\text{V}$			1.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=150\text{V}$; $I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7\text{V}$; $I_C=0$			100	μA
h_{FE-1}	DC current gain	$I_C=3\text{A}$; $V_{CE}=5\text{V}$	20			
h_{FE-2}	DC current gain	$I_C=5\text{A}$; $V_{CE}=5\text{V}$	15			

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PACKAGE OUTLINE

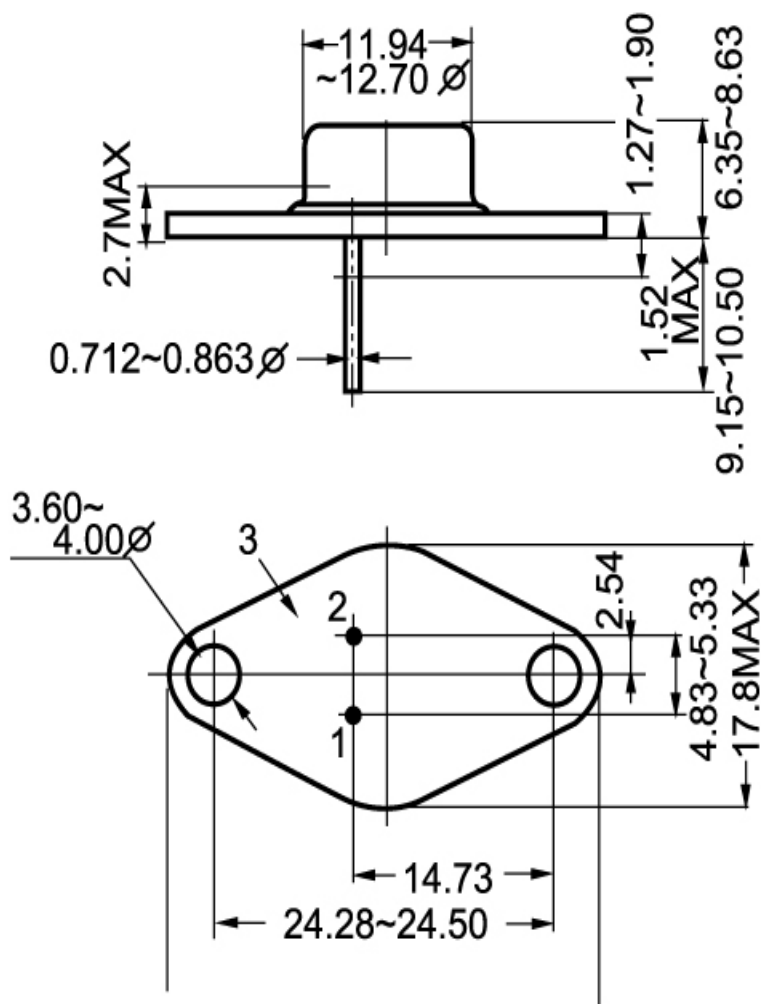


Fig.2 Outline dimensions