

Silicon PNP Power Transistors

2N3740 2N3741

DESCRIPTION

With TO-66 package

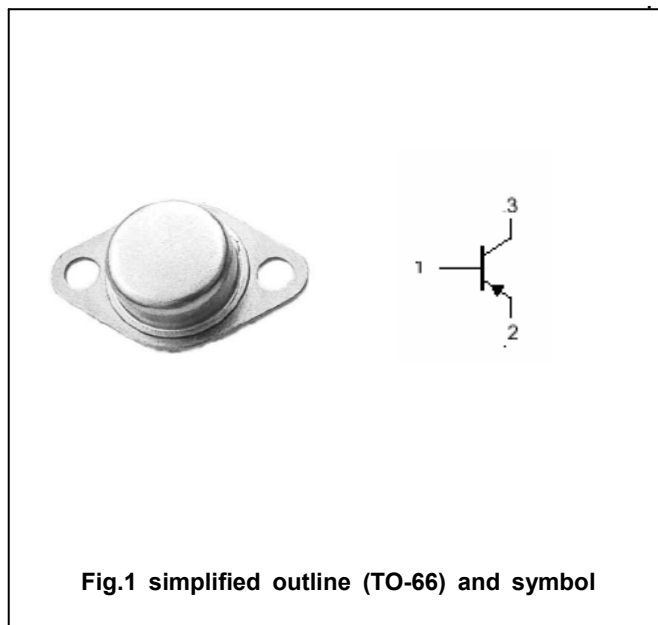
- Excellent safe area limits
- Low collector saturation voltage

APPLICATIONS

- Suitable for use in as drivers, switches and medium-power amplifier and applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N3740	-60	V
		2N3741	-80	
V_{CEO}	Collector-emitter voltage	2N3740	-60	V
		2N3741	-80	
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-4	A
I_{CM}	Collector current-Peak		-10	A
I_B	Base current		-2	mA
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	25	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{(th)jc}$	Thermal resistance from junction to case	7.0	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2N3740	I _C =-100mA ; I _B =0	-60			V
		2N3741		-80			
V _{CE(sat)}	Collector-emitter saturation voltage		I _C =-1A ; I _B =-125mA			-0.6	V
V _{BE(on)}	Base -emitter on voltage		I _C =-0.25A ; V _{CE} =-1V			-1.0	V
I _{CEX}	Collector cut-off current	2N3740	V _{CE} =-60V; V _{BE(off)} =-1.5V V _{CE} =-40V; V _{BE(off)} =-1.5V; T _C =150℃			-0.1 -1.0	mA
		2N3741	V _{CE} =80V; V _{BE(off)} =1.5V V _{CE} =60V; V _{BE(off)} =1.5V; T _C =150℃			-0.1 -1.0	
I _{CEO}	Collector cut-off current	2N3740	V _{CE} =-40V; I _B =0			-1.0	mA
		2N3741	V _{CE} =-60V; I _B =0				
I _{CBO}	Collector cut-off current	2N3740	V _{CB} =-60V; I _E =0			-0.1	mA
		2N3741	V _{CB} =-80V; I _E =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-7V; I _C =0			-0.5	mA
h _{FE-1}	DC current gain		I _C =-0.1A ; V _{CE} =-1V	40			
h _{FE-2}	DC current gain		I _C =-0.25A ; V _{CE} =-1V	30		100	
h _{FE-3}	DC current gain		I _C =-0.5A ; V _{CE} =-1V	20			
h _{FE-4}	DC current gain		I _C =-1A ; V _{CE} =-1V	10			
f _T	Transition frequency		I _C =-0.1A ; V _{CE} =-10V; f=1.0MHz	3.0			MHz
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =-10V; f=100kHz			100	pF

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PACKAGE OUTLINE

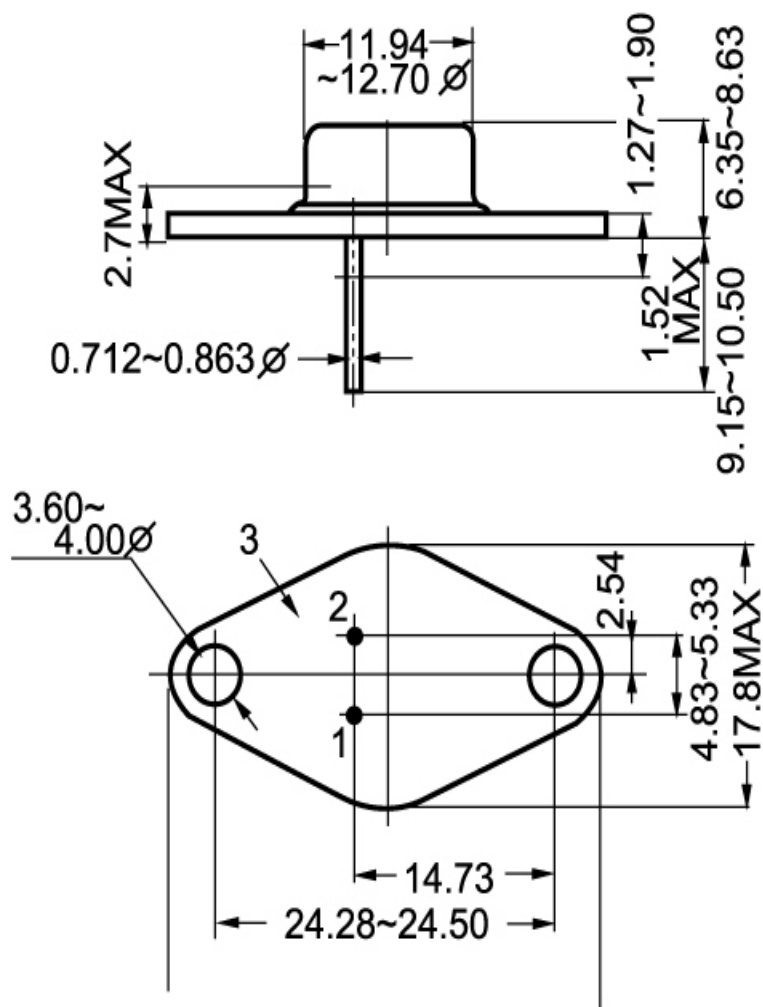


Fig.2 Outline dimensions