

Silicon PNP Power Transistors

2N6053 2N6054

DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- DARLINGTON
- Complement to type 2N6055;2N6056

APPLICATIONS

- General-purpose power amplifier and low frequency swithing applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

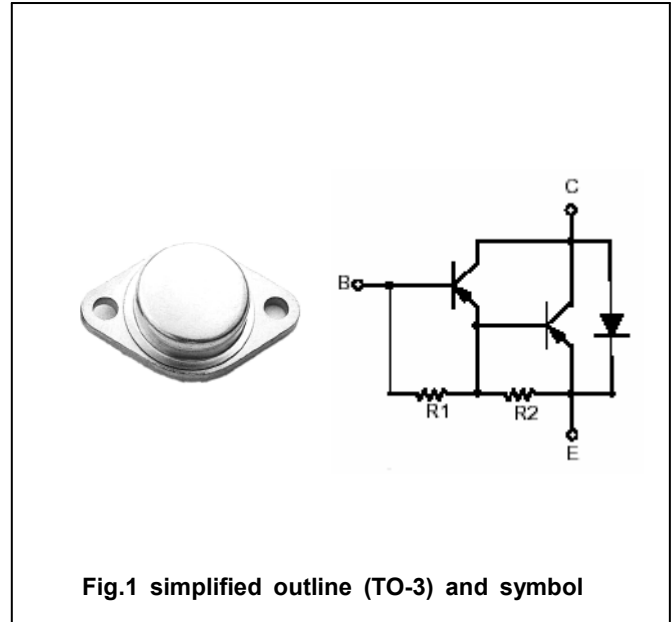


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6053	-60	V
		2N6054	-80	
V_{CEO}	Collector-emitter voltage	2N6053	-60	V
		2N6054	-80	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-8	A
I_{CM}	Collector current-peak		-16	A
I_B	Base current		-120	mA
P_D	Total Power Dissipation	$T_C=25^\circ$	100	W
T_j	Junction temperature		200	$^\circ$
T_{stg}	Storage temperature		-65~200	$^\circ$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.75	$^\circ/W$

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CHARACTERISTICS

T_m=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N6053	I _C =-0.1 A ; I _B =0	-60			V
		2N6054		-80			
V _{CE(sat)-1}	Collector-emitter saturation voltage	I _C =-4A ; I _B =-16mA			-2.0	V	
V _{CE(sat)-2}	Collector-emitter saturation voltage	I _C =-8A ; I _B =-80mA			-3.0	V	
V _{BE(sat)}	Base-emitter saturation voltage	I _C =-8A ; I _B =-80mA			-4.0	V	
V _{BE}	Base-emitter on voltage	I _C =-4A ; V _{CE} =-3V			-2.8	V	
I _{CEO}	Collector cut-off current	2N6053	V _{CE} =-30V ; I _B =0			-0.5	mA
		2N6054		V _{CE} =-40V ; I _B =0			
I _{CEx}	Collector cut-off current	2N6053	V _{CE} =-60V ; V _{BE(off)} =-1.5V T _C =150 °C			-0.5 -5.0	mA
		2N6054		V _{CE} =-80V ; V _{BE(off)} =-1.5V T _C =150 °C			
I _{EBO}	Emitter cut-off current	V _{EB} =-5V ; I _C =0			-2.0	mA	
h _{FE-1}	DC current gain	I _C =-4A ; V _{CE} =-3V	750		18000		
h _{FE-2}	DC current gain	I _C =-8A ; V _{CE} =-3V	100				
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V ; f=0.1MHz			350	pF	

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PACKAGE OUTLINE

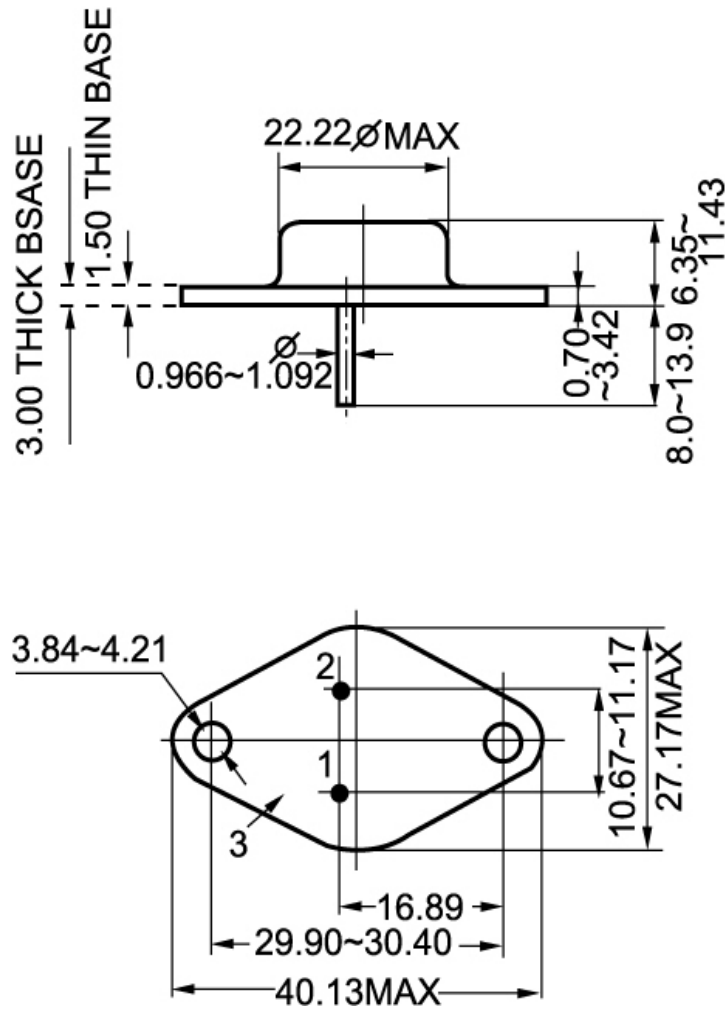


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)