

Silicon NPN Power Transistors

2N6576 2N6577 2N6578

DESCRIPTION

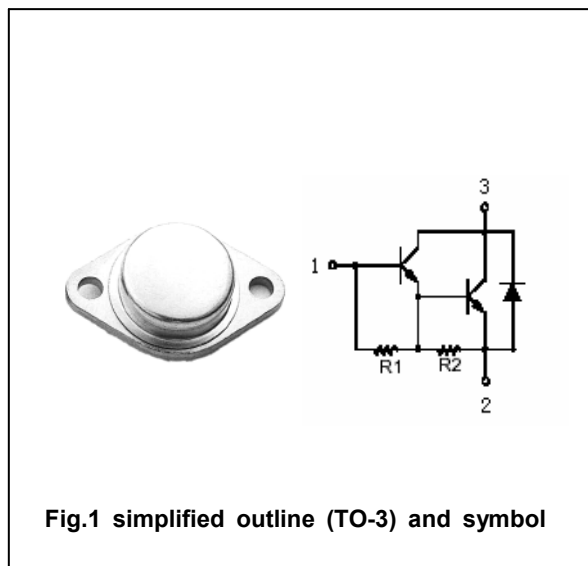
- With TO-3 package
- DARLINGTON
- High DC current gain

APPLICATIONS

- Power switching
- Audio amplifiers
- Hammer drivers
- Series and shunt regulators

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6576	Open emitter	60	V
		2N6577		90	
		2N6578		120	
V_{CEO}	Collector-emitter voltage	2N6576	Open base	60	V
		2N6577		90	
		2N6578		120	
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			15	A
I_{CM}	Collector current-peak			30	A
I_B	Base current			0.25	A
P_D	Total Power Dissipation		$T_C = 25\square$	120	W
T_j	Junction temperature			200	$\square$
T_{stg}	Storage temperature			-65~200	$\square$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	2N6576	I _C =0.2A ; I _B =0	60			V
		2N6577		90			
		2N6578		120			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =10A; I _B =100mA			2.8	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =15A ; I _B =150mA			4.0	V
V _{BE sat-1}	Base-emitter saturation voltage		I _C =10A; I _B =100mA			3.5	V
V _{BE sat-2}	Base-emitter saturation voltage		I _C =15A ; I _B =150mA			4.5	V
I _{CEO}	Collector cut-off current	2N6576	V _{CE} =60V; I _B =0			1.0	mA
		2N6577	V _{CE} =90V; I _B =0				
		2N6578	V _{CE} =120V; I _B =0				
I _{CBO}	Collector cut-off current	2N6576	V _{CB} =60V; I _E =0			0.5	mA
		2N6577	V _{CB} =90V; I _E =0				
		2N6578	V _{CB} =120V; I _E =0				
I _{EBO}	Emitter cut-off current		V _{EB} =7V; I _C =0			7.5	mA
h _{FE-1}	DC current gain		I _C =0.4A ; V _{CE} =3V	200			
h _{FE-2}	DC current gain		I _C =4A ; V _{CE} =3V	2000		20000	
h _{FE-3}	DC current gain		I _C =10A ; V _{CE} =3V	500		5000	
h _{FE-4}	DC current gain		I _C =15A ; V _{CE} =4V	100			
V _F	Diode forward voltage		I _F =15A			4.5	A

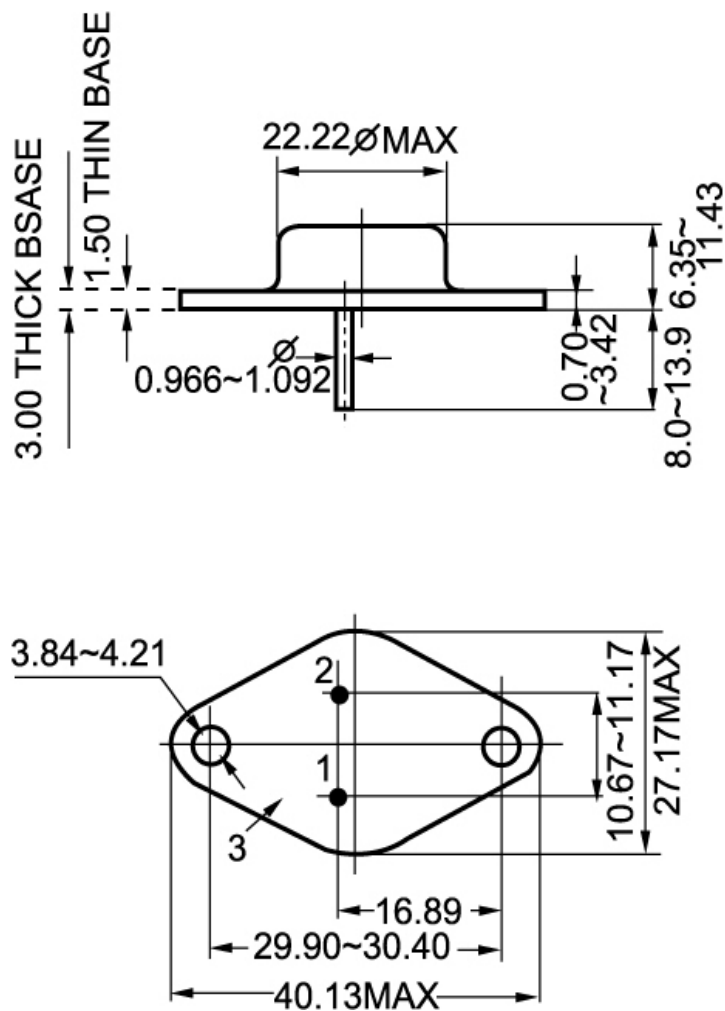
THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	1.46	°C/W

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PACKAGE OUTLINE

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