Silicon NPN Power Transistors 2N6058/2N6059

DESCRIPTION

- With TO-3 package
- High gain
- High current
- High dissipation
- Complement to type 2N5883/2N5884

APPLICATIONS

- They are intended for use in power linear and low frequency switching applications

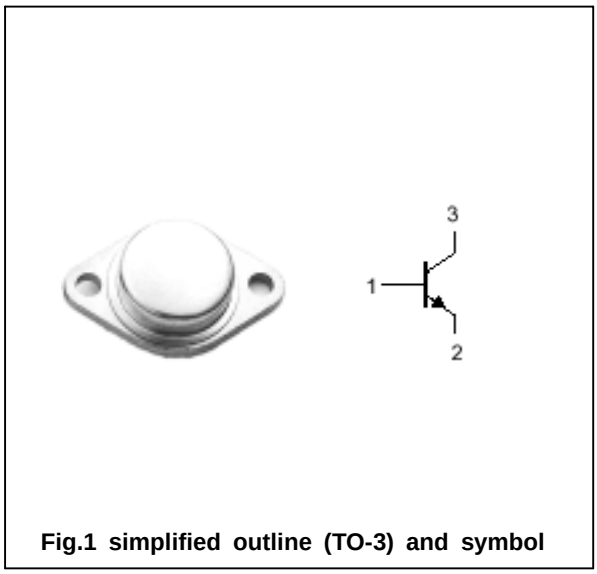

Fig.1 simplified outline (TO-3) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings(Ta=℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6058	Open emitter	80	V
		2N6059		100	
V_{CEO}	Collector-emitter voltage	2N6058	Open base	80	V
		2N6059		100	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			12	A
I_{CM}	Collector current-peak			20	A
I_B	Base current			0.2	mA
P_D	Total Power Dissipation		T_C=25℃	150	W
T_j	Junction temperature			200	℃
T_{stg}	Storage temperature			-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	1.17	℃/W

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(sus)}$	Collector-emitter sustaining voltage	2N6058	I_C=0.1A ;I_B=0	80			V
		2N6059		100			V
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=6A I_B=24mA			2	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=12A I_B=120mA			3	V
V_{BEsat}	Collector-emitter saturation voltage		I_C=12A I_B=120mA			4	V
V_{BE}	Base-emitter on voltage		I_C=6A ; V_{CE}=3V			2.8	V
I_{CEO}	Collector cut-off current	2N6058	V_{CE}=40V; I_B=0			1	mA
		2N6059	V_{CE}=50V; I_B=0				
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			2	mA
h_{FE-1}	DC current gain		I_C=6A ; V_{CE}=3V	750			
h_{FE-2}	DC current gain		I_C=12A ; V_{CE}=3V	100			
f_T	Trainsistion frequency		I_C=5A ;V_{CE}=3V;f=1MHz	4			MHz

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PACKAGE OUTLINE

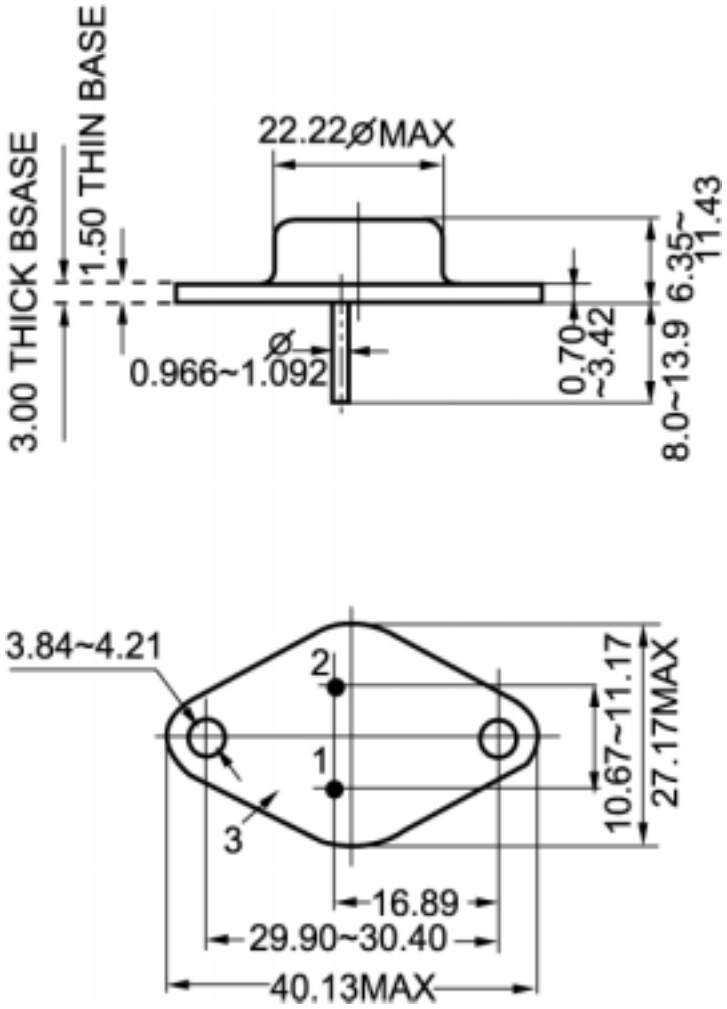

Fig.2 outline dimensions (unindicated tolerance:±0.10mm)