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

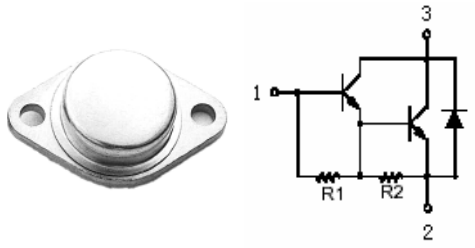

Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

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□	120	W
T_j	Junction temperature			200	□
T_{stg}	Storage temperature			-65~200	□

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	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	□/W

PACKAGE OUTLINE

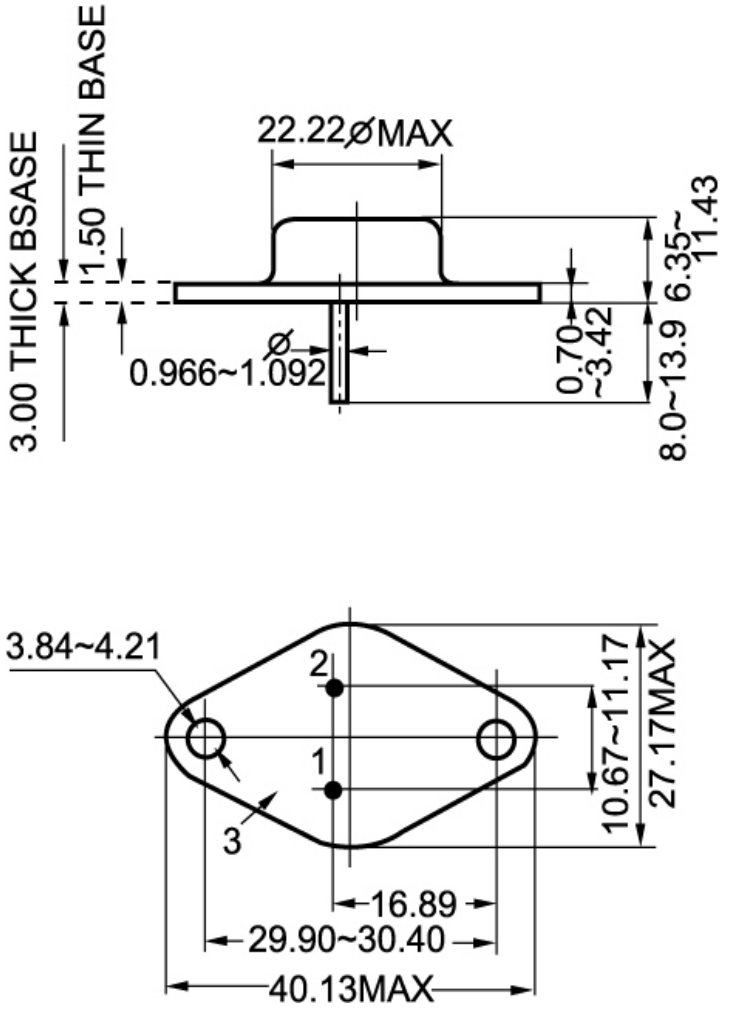

Fig.2 outline dimensions (unindicated tolerance:±0.10mm)