Silicon NPN Power Transistors 2N4921 2N4922 2N4923

DESCRIPTION

·With TO-126 package
·Complement to type 2N4918/4919/4920
·Excellent safe operating area
·Low collector saturation voltage

APPLICATIONS

·For driver circuits ,switching ,and amplifier applications

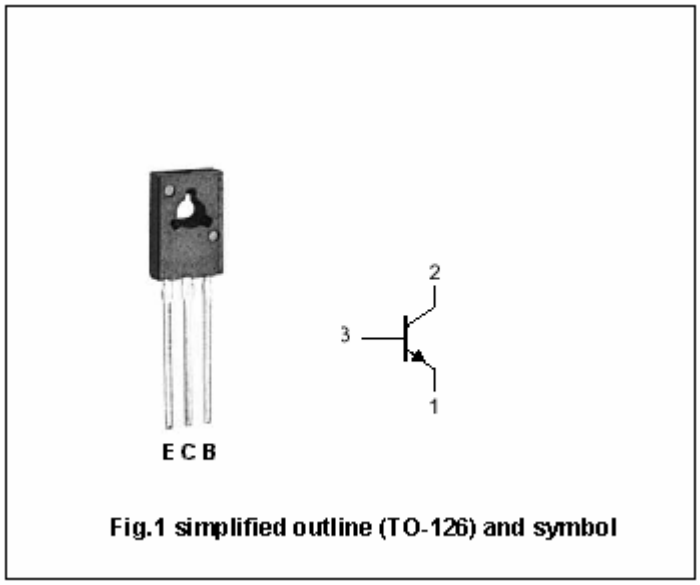

Fig.1 simplified outline (TO-126) and symbol

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N4921	Open emitter	40	V
		2N4922		60	
		2N4923		80	
V_{CEO}	Collector-emitter voltage	2N4921	Open base	40	V
		2N4922		60	
		2N4923		80	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			1	A
I_{CM}	Collector current-Peak			3	A
I_B	Base current			1	A
P_D	Total power dissipation		T_C=25□	30	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-65~150	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	4.16	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N4921	I_C=0.1A; I_B=0	40			V
		2N4922		60			
		2N4923		80			
V_{CEsat}	Collector-emitter saturation voltage		I_C=1.0A ;I_B=0.1A			0.6	V
V_{BEsat}	Base-emitter saturation voltage		I_C=1.0A ;I_B=0.1A			1.3	V
V_{BE}	Base-emitter on voltage		I_C=1A ; V_{CE}=1V			1.3	V
I_{CEO}	Collector cut-off current	2N4921	V_{CE}=20V; I_B=0			0.5	mA
		2N4922	V_{CE}=30V; I_B=0				
		2N4923	V_{CE}=40V; I_B=0				
I_{CBO}	Collector cut-off current		V_{CB}= Rated V_{CBO} ;I_E=0			0.1	mA
I_{CEX}	Collector cut-off current		V_{CE}= Rated V_{CEO}; $V_{BE(off)}$=1.5V T_C=125□			0.1 0.5	mA
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			1.0	mA
h_{FE-1}	DC current gain		I_C=50mA ; V_{CE}=1V	40			
h_{FE-2}	DC current gain		I_C=500mA ; V_{CE}=1V	30		150	
h_{FE-3}	DC current gain		I_C=1A ; V_{CE}=1V	10			
f_T	Transition frequency		I_C=250mA ; V_{CE}=10V;f=1MHz	3.0			MHz
C_{OB}	Output capacitance		f=100kHz ; V_{CB}=10V;I_E=0			100	pF

PACKAGE OUTLINE

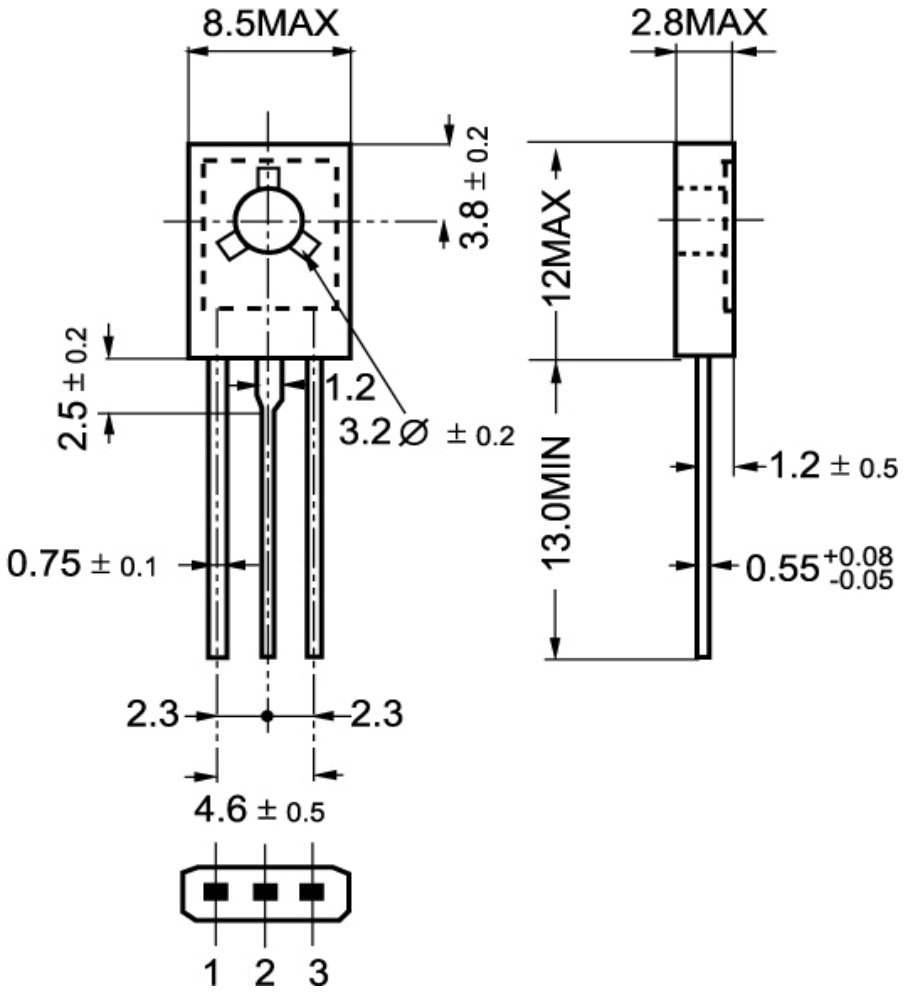

Fig.2 Outline dimensions