Silicon NPN Power Transistors 2N5655 2N5656 2N5657

DESCRIPTION

- With TO-126 package
- High breakdown voltage

APPLICATIONS

- For use in line-operated equipment such as audio output amplifiers; low-current ,high-voltage converters; and AC line relays

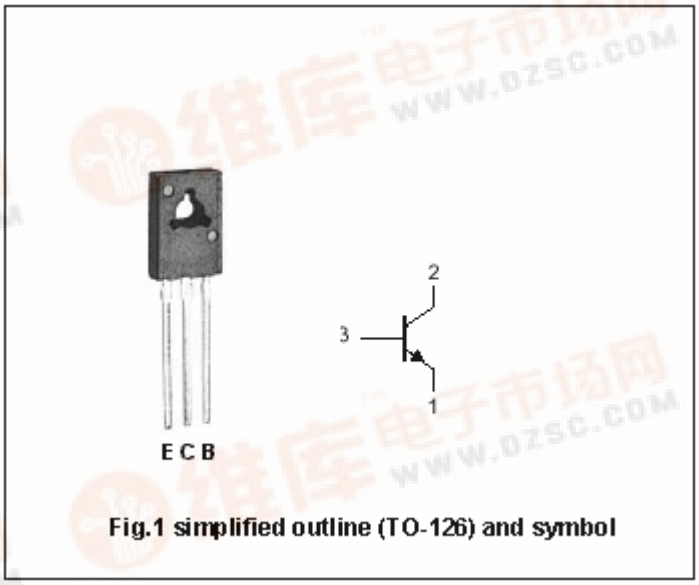

Fig.1 simplified outline (TO-126) and symbol

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	2N5655	Open emitter	275	V
		2N5656		325	
		2N5657		375	
V_{CEO}	Collector-emitter voltage	2N5655	Open base	250	V
		2N5656		300	
		2N5657		350	
V_{EBO}	Emitter-base voltage		Open collector	6	V
I_C	Collector current			0.5	A
I_{CM}	Collector current-Peak			1.0	A
I_B	Base current			0.25	A
P_D	Total power dissipation		T_C=25℃	20	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	6.25	℃/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	2N5655	I_C=0.1A; I_B=0;L=50mH	250			V
		2N5656		300			
		2N5657		350			
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=100mA ;I_B=10mA			1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=250mA ;I_B=25mA			2.5	V
$V_{CEsat-3}$	Collector-emitter saturation voltage		I_C=500mA ;I_B=100mA			10	V
V_{BE}	Base-emitter on voltage		I_C=100mA ; V_{CE}=10V			1.0	V
I_{CEO}	Collector cut-off current	2N5655	V_{CE}=150V; I_B=0			0.1	mA
		2N5656	V_{CE}=200V; I_B=0				
		2N5657	V_{CE}=250V; I_B=0				
I_{CBO}	Collector cut-off current	2N5655	V_{CB}=275V; I_E=0			10	μA
		2N5656	V_{CB}=325V; I_E=0				
		2N5657	V_{CB}=375V; I_E=0				
I_{CEX}	Collector cut-off current		V_{CE}= Rated V_{CEO}; $V_{BE(off)}$=1.5V T_C=100℃			0.1 1.0	mA
I_{EBO}	Emitter cut-off current		V_{EB}=6V; I_C=0			10	μA
h_{FE-1}	DC current gain		I_C=50mA ; V_{CE}=10V	25			
h_{FE-2}	DC current gain		I_C=100mA ; V_{CE}=10V	30		250	
h_{FE-3}	DC current gain		I_C=250mA ; V_{CE}=10V	15			
h_{FE-4}	DC current gain		I_C=500mA ; V_{CE}=10V	5			
f_T	Transition frequency		I_C=50mA ; V_{CE}=10V;f=10MHz	10			MHz
C_{OB}	Output capacitance		f=100kHz ; V_{CB}=10V;I_E=0			25	pF

PACKAGE OUTLINE

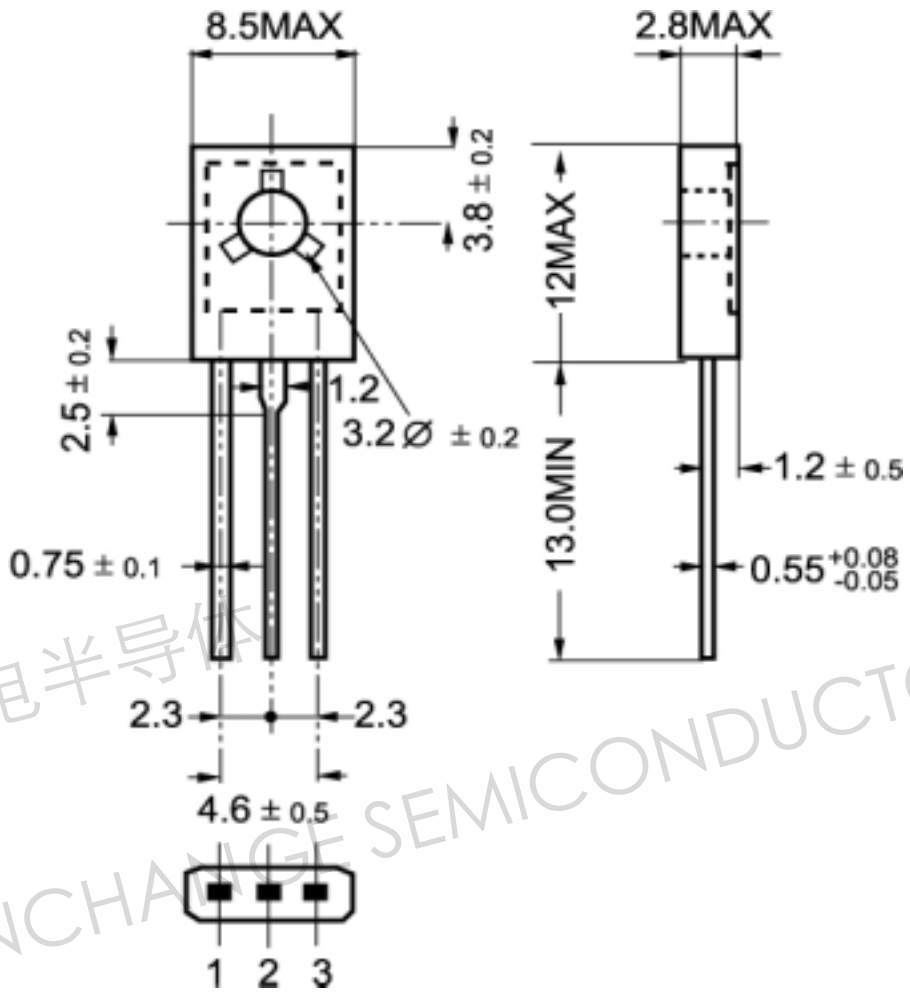

Fig.2 Outline dimensions