JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

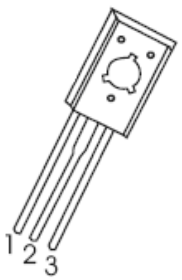
TO-126 Plastic-Encapsulate Transistors

TO – 126

1.BASE

2.COLLECTOR

3.EMITTER



2SC3149S TRANSISTOR (NPN)

FEATURES

- High Breakdown Voltage
- Fast Switching Speed
- Wide ASO (Safe Operating Area)

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	1400	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	0.6	A
P_C	Collector Power Dissipation	1.25	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	100	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$*	I_C= 0.1mA,I_E=0	1400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=1mA,I_B=0	800			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA,I_C=0	7			V
Collector cut-off current	I_{CBO}	V_{CB}=1000V,I_E=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			10	μA
DC current gain	$h_{FE(1)}$*	V_{CE}=5V, I_C=0.1A	24		30	
	$h_{FE(2)}$*	V_{CE}=5V, I_C=0.2A	8			
	$h_{FE(3)}$*	V_{CE}=5V, I_C=0.5mA	8			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$*	I_C=200mA,I_B=40mA			1	V
Base-emitter saturation voltage	$V_{BE\ (sat)}$*	I_C=200mA,I_B=40mA			1.5	V
Transition frequency	f_T	V_{CE}=10V,I_C=0.1A		15		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0, f=1MHz		30		pF

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.