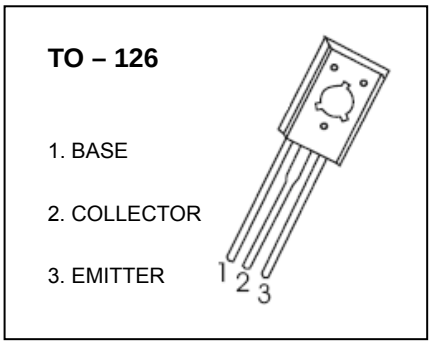
ShenzhenTaimaoTechnology Co.,Ltd.

TO-126 Plastic-Encapsulate Transistors

2SC3149M 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	2SC3149M 88	1290	V
		2SC3149M 88-C	1200	
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 voltag	$V_{(BR)CBO}$*	I_C=0.1mA, I_E=0	2SC3149M 88	1290			V
			2SC3149M 88-C	1200			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=1mA,I_B=0		800			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1m A,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		35	
	$h_{FE(2)}$*	V_{CE}=5V, I_C=0.2A		8			
	$h_{FE(3)}$*	V_{CE}=5V, I_C=0.5mA		8			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=200mA,I_B=40mA				1	V
Base-emitter saturation voltage	$V_{BE(sat)}$*	I_C=200mA,I_B=40mA				1.5	V
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0, f=1MHz			30		pF
Transition frequency	f_T	V_{CE}=10V,I_C=0.1A,			15		MHz

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