



TO-220-3L Plastic-Encapsulate Transistors

2SC3149 TRANSISTOR (NPN)

FEATURES

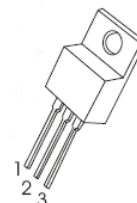
- High breakdown voltage($V_{CBO}>900V$)
- Fast switching speed
- Wide ASO

MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current –Continuous	0.5	A
P_C	Collector Power Dissipation	2	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55-150	$^{\circ}C$

TO-220-3L

1. BASE
2. COLLECTOR
3. EMITTER



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}^*$	$I_C=1mA, I_E=0$	900			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=5mA, I_B=0$	800			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=800V, I_E=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			10	μA
DC current gain	h_{FE1}^*	$V_{CE}=5V, I_C=100mA$	10		40	
	h_{FE2}^*	$V_{CE}=5V, I_C=200mA$	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
Transition frequency	f_T	$V_{CE}=10V, I_C=-100mA$		15		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		30		pF
Turn-on time	t_{on}	$I_C=1A, I_{B1}=0.2A, I_{B2}=-0.4A, R_L=400\Omega, V_{CC}=400V$			1.0	μS
Storage time	t_{stg}				3.0	μS
Fall time	t_f				0.7	μS

* pulse test.

CLASSIFICATION OF h_{FE1}

Rank	K	L	M
Range	10-20	15-30	20-40

Typical Characteristics

2SC3149

