

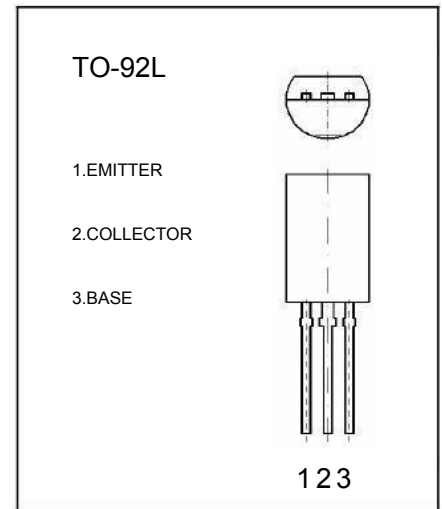


TO-92L Plastic-Encapsulate Transistors

D1853 TRANSISTOR (NPN)

FEATURES

Low collector to emitter saturation voltage $V_{CE(sat)}$.



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

Symbol	Parameter		Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	1.5	A
P_C	Collector Power Dissipation	0.7	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			2.5	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2\text{V}, I_C=500\text{mA}$	1000			
DC current gain	$h_{FE(2)}$	$V_{CE}=2\text{V}, I_C=1\text{A}$	2000			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1\text{A}, I_B=2\text{mA}$			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1\text{A}, I_B=2\text{mA}$			2.0	V

CLASSIFICATION OF $h_{FE(1)}$

Rank	1	2	3
Range	1000-1500	1500-1800	1800-2000