



TO-252-2L Plastic-Encapsulate Transistors

2SD1758 TRANSISTOR (NPN)

FEATURES

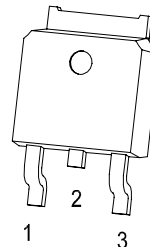
- Low $V_{CE(sat)}$, $V_{CE(sat)} = 0.5V$ (Typ.) ($I_C/I_B = 2A/0.2A$)

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	32	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	2	A
P_C	Collector dissipation	1.2	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$

TO-252-2L

- 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	$V_{(BR)CBO}$	$I_C=50\mu A$, $I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$, $I_B=0$	32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V$, $I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$, $I_C=0$			1	μA
DC current gain	h_{FE}	$V_{CE}=3V$, $I_C=500mA$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A$, $I_B=0.2A$			0.8	V
Transition frequency	f_T	$V_{CE}=5V$, $I_C=50mA$, $f=100MHz$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1MHz$		30		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390