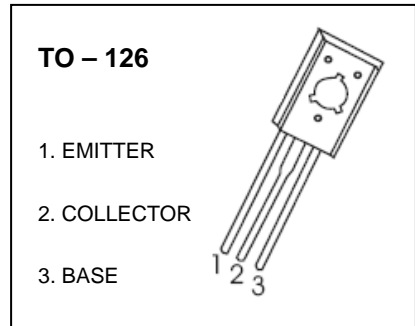


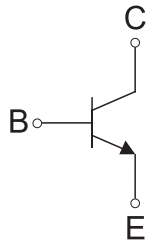
2SD886 TRANSISTOR (NPN)

FEATURES

- Low Voltage
- High Current



Equivalent Circuit



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

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	50	V
V_{CE0}	Collector-Emitter Voltage	50	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current	3	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

$T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=5\text{mA}, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=50\text{V}, I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=2\text{V}, I_C=20\text{mA}$	100			
	$h_{FE(2)}^*$	$V_{CE}=2\text{V}, I_C=1\text{A}$	100		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{A}, I_B=200\text{mA}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2\text{A}, I_B=200\text{mA}$			2	V
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		45		pF
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=100\text{mA}$		80		MHz

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2.0\%$.

