

# TO-92 Plastic-Encapsulate Transistors

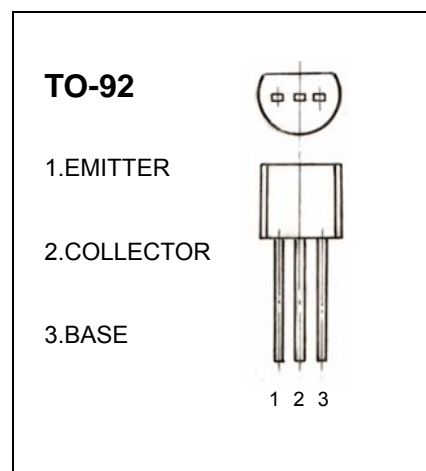
## D882S TRANSISTOR (NPN)

### FEATURES

Power dissipation

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

Symbol	Parameter	Value	Units
$V_{CB0}$	Collector-Base Voltage	40	V
$V_{CE0}$	Collector-Emitter Voltage	30	V
$V_{EB0}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	3	A
$P_C$	Collector Power Dissipation	0.75	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-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}$ , $I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$ , $I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}$ , $I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}= 40\text{V}$ , $I_E=0$			1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE}= 30\text{V}$ , $I_B=0$			10	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}= 6\text{V}$ , $I_C=0$			1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=2\text{V}$ , $I_C= 1\text{A}$	60		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C= 2\text{A}$ , $I_B= 0.2\text{A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C= 2\text{A}$ , $I_B= 0.2\text{A}$			1.5	V
Transition frequency	$f_T$	$V_{CE}= 5\text{V}$ , $I_C=0.1\text{A}$ $f = 10\text{MHz}$	50			MHz

### CLASSIFICATION OF $h_{FE}$

Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400