



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92L Plastic-Encapsulate Transistors

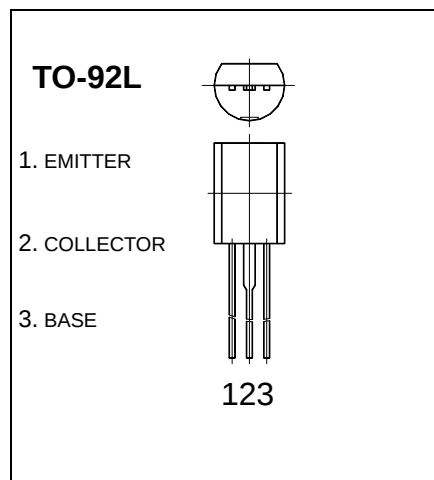
2SD400 TRANSISTOR (NPN)

FEATURES

Low-Frequency power Amp, Electronic Governor Applications

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1	A
P_C	Collector Power Dissipation	0.9	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	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$, $I_E=0$	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=20\text{V}$, $I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$, $I_C=0$			1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2\text{V}$, $I_C=50\text{mA}$	60		560	
	$h_{FE(2)}$	$V_{CE}=2\text{V}$, $I_C=1\text{A}$	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$			1.2	V
Transition frequency	f_T	$V_{CE}=10\text{V}$, $I_C=50\text{mA}$		180		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $f=1\text{MHz}$		15		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	D	E	F	G
Range	60-120	100-200	160-320	280-560

Typical Characteristics

