



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-89-3L Plastic-Encapsulate Transistors

2SD1664 TRANSISTOR (NPN)

FEATURES

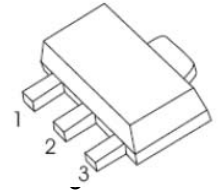
- Low $V_{CE(sat)}$, $V_{CE(sat)}=0.15V(\text{typical})$. ($I_C/I_B=500mA/50mA$)
- Complements to 2SB1132

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ 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	1	A
P_C	Collector power dissipation	500	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V$, $I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$, $I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=3V$, $I_C=100\text{mA}$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=0.5A$, $I_B=50\text{mA}$			0.4	V
Transition frequency	f_T	$V_{CE}=5V$, $I_C=50\text{mA}$, $f=100\text{MHz}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1\text{MHz}$		15		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	DAP	DAQ	DAR

Typical Characteristics

2SD1664

