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Silicon NPN Power Transistor

2SC1827

DESCRIPTION

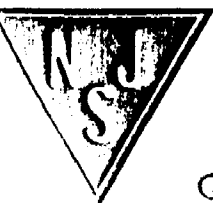
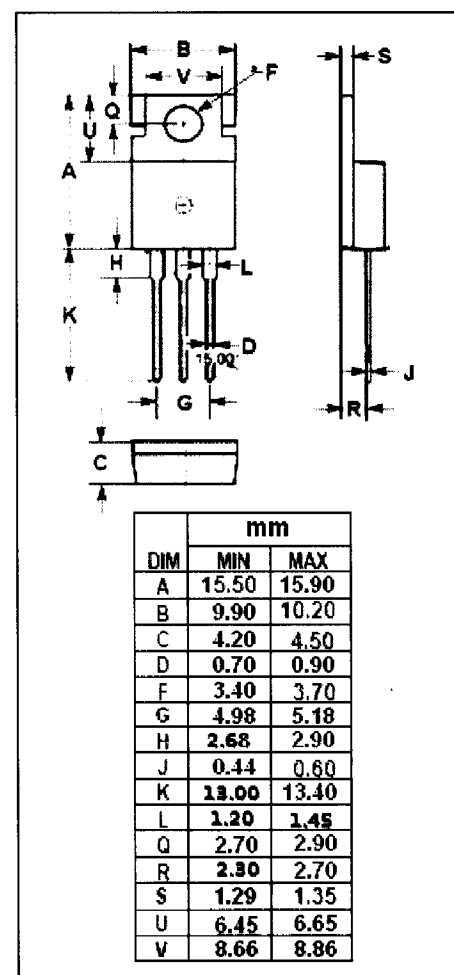
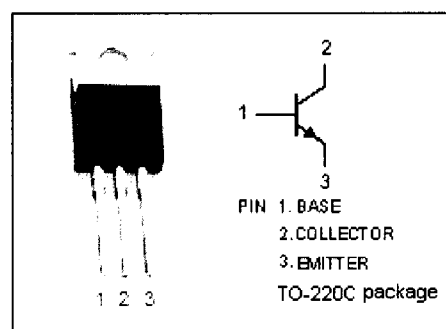
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80(V)(Min.)$
- Complement to Type 2SA769

APPLICATIONS

- Designed for audio and general purpose applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	4	A
I_B	Base Collector Current-Continuous	1	A
P_C	Total Power Dissipation @ $T_C=25^\circ C$	30	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

Silicon NPN Power Transistor**2SC1827****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 25\text{mA}; I_B = 0$	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 2\text{A}; I_B = 0.2\text{A}$			1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 80\text{V}; I_E = 0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 6\text{V}; I_C = 0$			1.0	mA
h_{FE}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 4\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_E = 0.2\text{A}; V_{CE} = 10\text{V}$		10		MHz

Switching Times

t_r	Rise Time	$I_C = 2\text{A}, R_L = 3\Omega,$ $I_{B1} = I_{B2} = 0.3\text{A}, V_{CC} = 6\text{V}$		1.0		μs
t_{stg}	Storage Time			0.4		μs
t_f	Fall Time			0.15		μs