

isc Silicon NPN Power Transistor

2SD130

DESCRIPTION

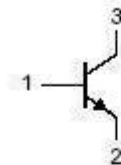
- DC Current Gain $-h_{FE} = 15(\text{Min})@ I_C = 3A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

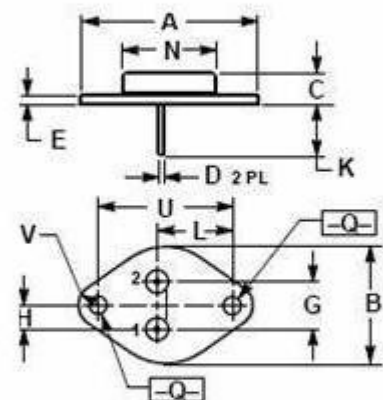
- Designed for use in general purpose amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	3.0	A
I_{CM}	Collector Current-Peak	5.0	A
I_B	Base Current	1.0	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$



PIN 1. BASE
2. EMITTER
3. COLLECTOR (CASE)
TO-66 package



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

isc Silicon NPN Power Transistor**2SD130****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}$; $I_B=0$	60		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}$; $I_B=0.375\text{A}$		1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=3\text{A}$; $V_{CE}=4\text{V}$		1.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=100\text{V}$; $V_{EB}=0$		0.2	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=60\text{V}$; $I_B=0$		0.3	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$		0.1	mA
h_{FE-1}	DC Current Gain	$I_C=0.5\text{A}$; $V_{CE}=5\text{V}$	30	200	
h_{FE-2}	DC Current Gain	$I_C=3\text{A}$; $V_{CE}=5\text{V}$	15		
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}$; $V_{CE}=10\text{V}$	10		MHz

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