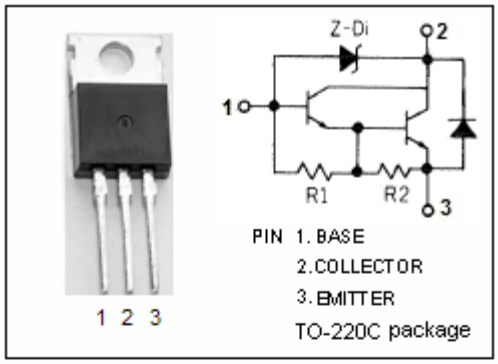
isc Silicon NPN Darlington Power Transistor 2SD1071

DESCRIPTION

- Low Collector Saturation Voltage
- High DC Current Gain
- High Reliability



APPLICATIONS

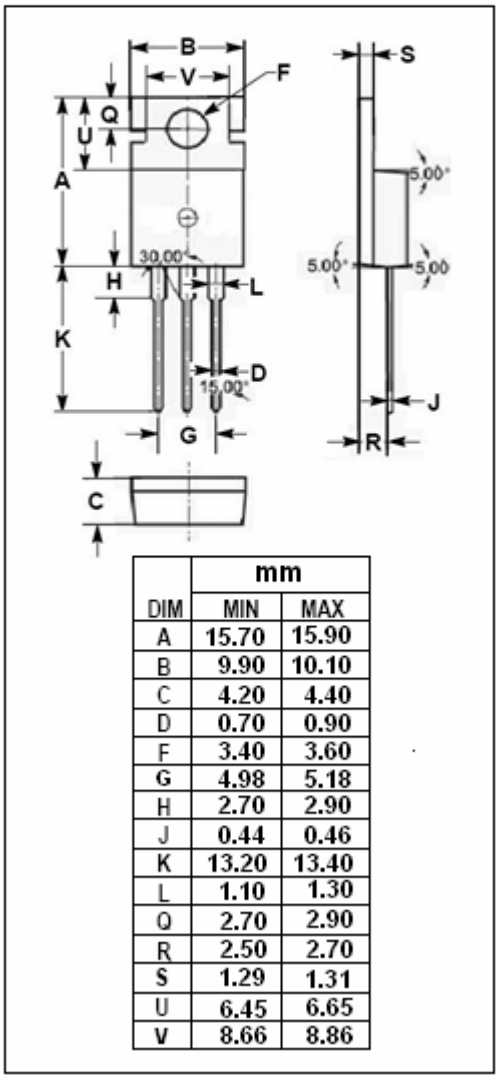
- Audio power amplifiers
- Relay & solenoid drivers
- Motor controls
- General purpose power amplifiers
- Including zener diode

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	(450)	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	6	V
V_Z	Zener Voltage	300	V
I_C	Collector Current-Continuous	6	A
I_B	Base Current-Continuous	2.5	A
P_C	Collector Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-40~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	3.0	℃/W



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

isc Silicon NPN Darlington Power Transistor 2SD1071

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_Z	Zener Voltage	I_Z= 0.1mA	300		450	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 150mA; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 15mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 15mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 300V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0			150	mA
h_{FE}	DC Current Gain	I_C= 4A; V_{CE}= 2V	500			