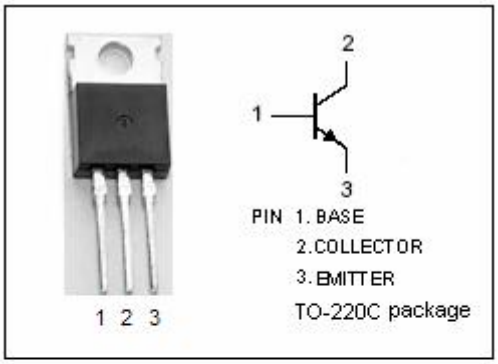
isc Silicon NPN Power Transistor — 2SD389



DESCRIPTION

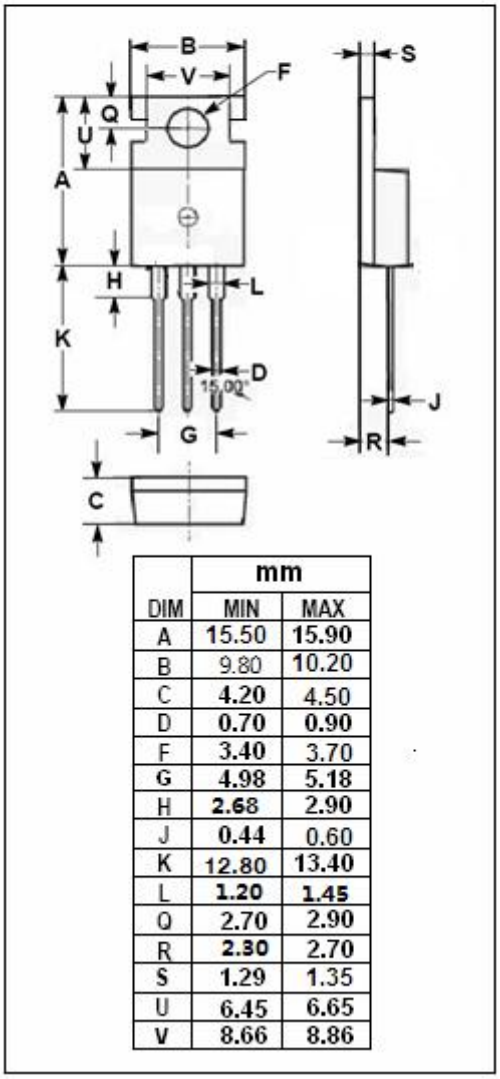
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 60V(Min)
- Wide Area of Safe Operation
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for medium power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	3.0	A
P_C	Collector Power Dissipation @ T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=10mA; I_B= 0	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.4A			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 1A; V_{CE}= 3V			1.4	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 20V; I_E= 0			30	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 8V; I_C= 0			1.0	mA
h_{FE-1}	DC Current Gain	I_C= 0.1A; V_{CE}= 3V	40			
h_{FE-2}	DC Current Gain	I_C= 1A; V_{CE}= 3V	30	60	160	

◆ **h_{FE-2} Classifications**

Q	P	O
30-60	50-100	80-160