

isc Silicon NPN Power Transistor

2SD389

DESCRIPTION

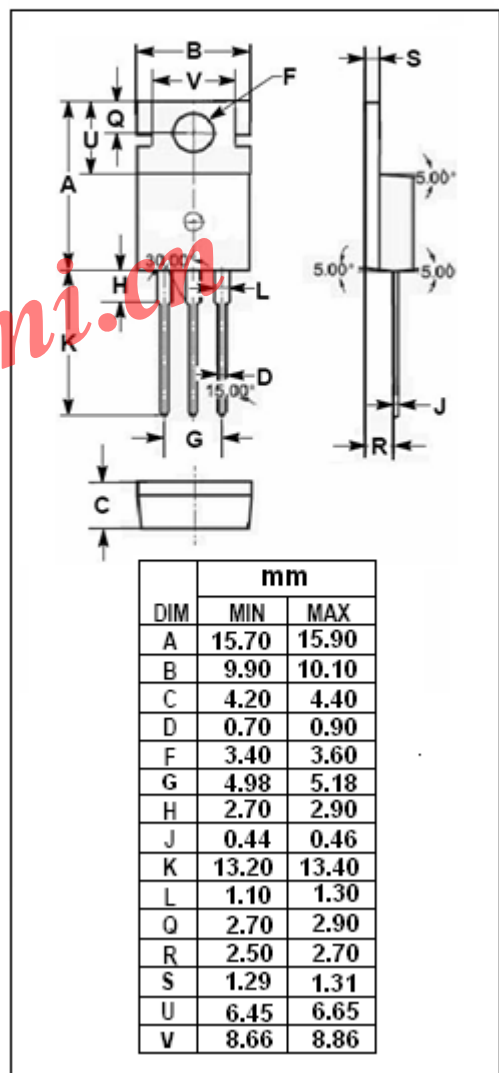
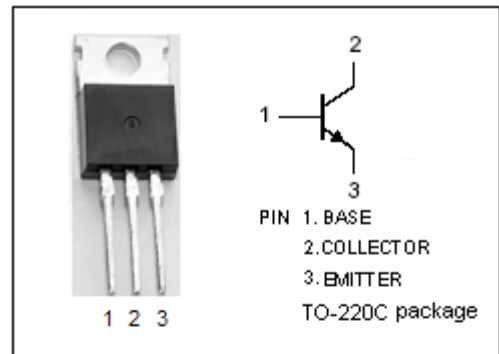
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Wide Area of Safe Operation
- High Power Dissipation

APPLICATIONS

- Designed for medium power amplifier applications.

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

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 @ $T_C=25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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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	$I_C=0.2\text{A}; L=25\text{mH}$	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.4\text{A}$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=1\text{A}; V_{CE}=3\text{V}$			1.4	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=20\text{V}; I_E=0$			30	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=8\text{V}; I_C=0$			1.0	mA
h_{FE-1}	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=3\text{V}$	40			
h_{FE-2}	DC Current Gain	$I_C=1\text{A}; V_{CE}=3\text{V}$	30		160	

◆ h_{FE-2} Classifications

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