

isc Silicon NPN Power Transistor
2SC789
DESCRIPTION

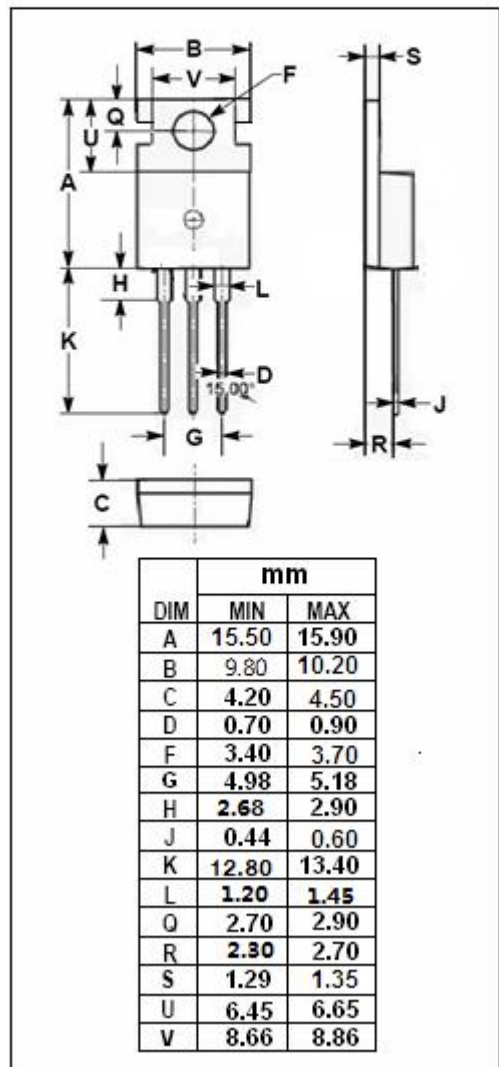
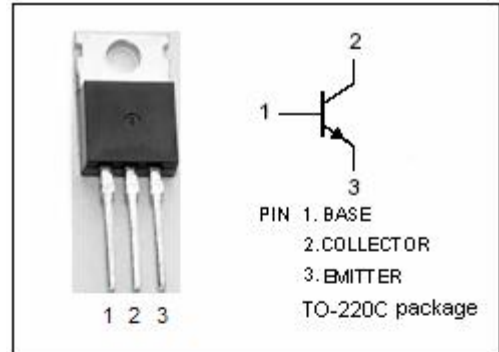
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5(V)(Max) @ I_C = 3A$
- DC Current Gain-
: $h_{FE} = 40-240 @ I_C = 0.5A$
- Complement to Type 2SA489
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	70	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_B	Base 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	$^\circ C$



isc Silicon NPN Power Transistor**2SC789****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	$I_C=25\text{mA}; I_B=0$	70			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=2\text{A}; I_B=0.2\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=70\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			100	μA
h_{FE-1}	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	40		240	
h_{FE-2}	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	15			
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	3			MHz

◆ **h_{FE-1} Classifications**

O	R	Y
40-80	70-140	120-240

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