

isc Silicon NPN Power Transistor

2SC790

DESCRIPTION

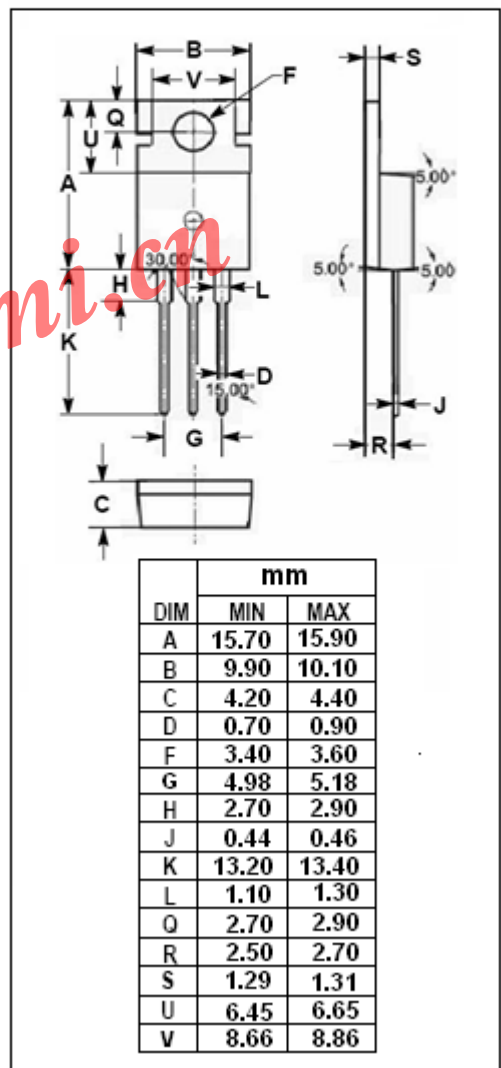
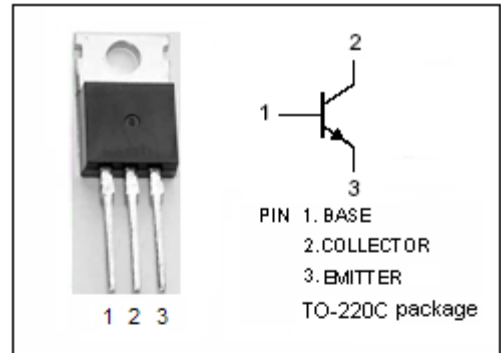
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = 1.4(V)(Max) @ I_C = 2A$
- DC Current Gain-  
:  $h_{FE} = 40-240 @ I_C = 0.5A$
- Complement to Type 2SA490

APPLICATIONS

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	50	V
$V_{CEO}$	Collector-Emitter Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	3	A
$I_E$	Emitter Current-Continuous	-3	A
$P_C$	Total Power Dissipation @ $T_C=25^{\circ}C$	25	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



## isc Silicon NPN Power Transistor

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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	$I_C=50\text{mA}; I_B=0$	40			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$			1.4	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=2\text{A}; V_{CE}=2\text{V}$			1.8	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=30\text{V}; I_E=0$			10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			100	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=2\text{V}$	40		240	
$h_{FE-2}$	DC Current Gain	$I_C=2\text{A}; V_{CE}=2\text{V}$	13			
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=2\text{V}$	3			MHz
$C_{OB}$	Collector Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		70		pF

◆  $h_{FE-1}$  Classifications

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