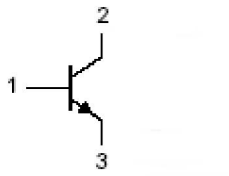
isc Silicon NPN Power Transistor 2SC790



PIN 1. BASE
2. COLLECTOR
3. EMITTER
TO-220C package

DESCRIPTION

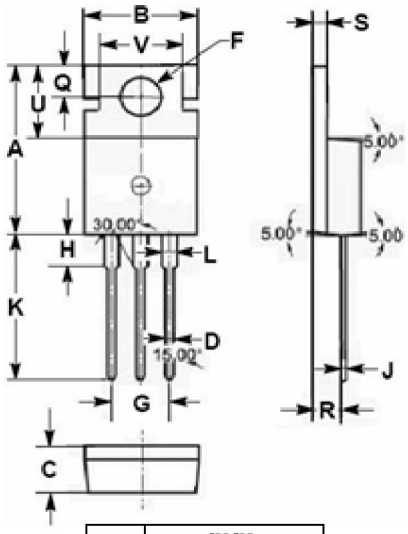
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.4(V)(Max)@ I_C= 2A
- DC Current Gain-
  : h_{FE}= 40-240 @ I_C= 0.5A
- Complement to Type 2SA490

APPLICATIONS

- Designed for power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



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

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

◆ **h_{FE-1} Classifications**

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