

isc Silicon NPN Power Transistor

2SD1770

DESCRIPTION

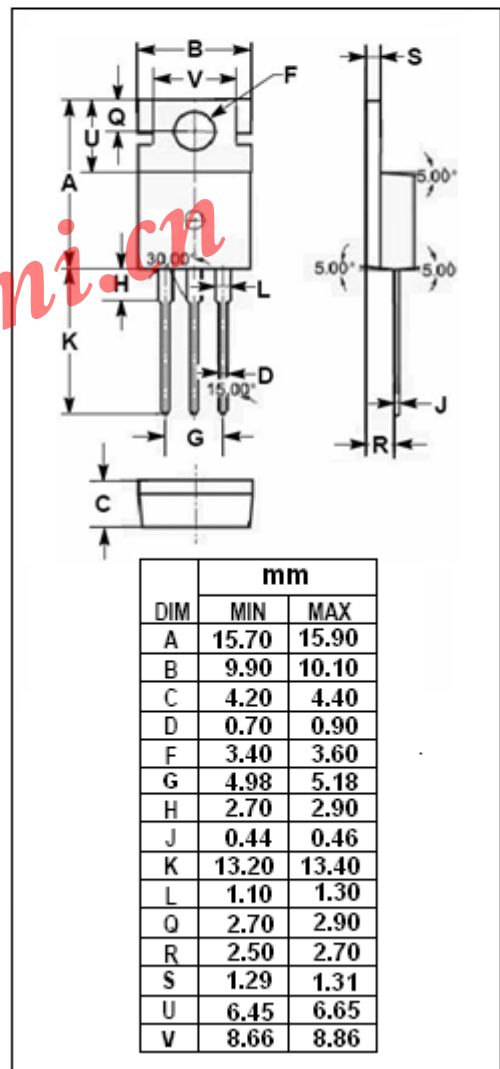
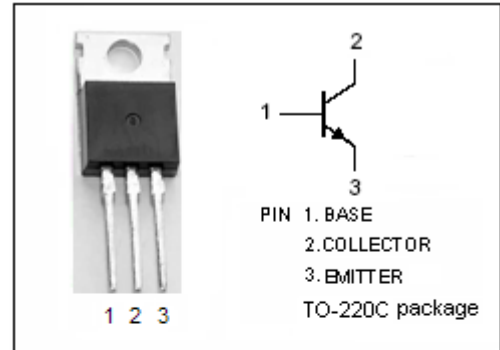
- High Power Dissipation
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V(\text{Min.})$
- Complement to Type 2SB1190

APPLICATIONS

- Power amplifier applications.
- TV vertical deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	1	A
I_{CM}	Collector Current-Peak	2	A
P_C	Total Power Dissipation @ $T_C=25^\circ\text{C}$	25	W
	Total Power Dissipation @ $T_a=25^\circ\text{C}$	1.4	
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	$I_C=5\text{mA}; I_B=0$	150			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=0.5\text{mA}; I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=0.5\text{A}; I_B=50\text{mA}$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=0.3\text{A}; V_{CE}=10\text{V}$			1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=200\text{V}; I_E=0$			50	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			50	μA
h_{FE-1}	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=10\text{V}$	60		240	
h_{FE-2}	DC Current Gain	$I_C=0.3\text{A}; V_{CE}=10\text{V}$	50			
f_T	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=10\text{V}$		20		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		27		pF

◆ h_{FE-1} Classifications

Q	P
60-140	100-240