

isc Silicon PNP Power Transistor

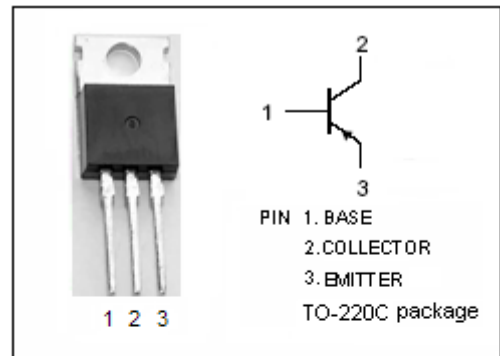
2SB703

DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -80V(\text{Min})$
- DC Current Gain-  
:  $h_{FE} = 40\sim 200 @ I_C = -0.5A$
- Complement to Type 2SD743

APPLICATIONS

- Designed for use in audio frequency power amplifier, low speed switching applications.

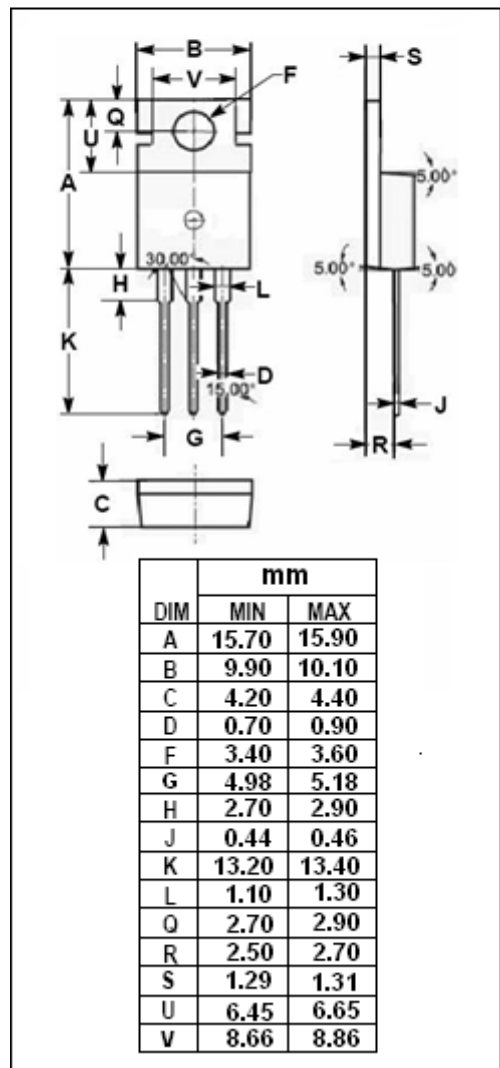


ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-4	A
$I_{CM}$	Collector Current-Peak	-6	A
$I_B$	Base Current-Continuous	-1	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	40	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ\text{C}/\text{W}$



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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	$I_C = -10\text{mA}; I_B = 0$	-80			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}; I_E = 0$	-80			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	$I_C = -3\text{A}; I_B = -0.3\text{A}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -3\text{A}; I_B = -0.3\text{A}$			-2.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{V}; I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -3\text{V}; I_C = 0$			-10	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -20\text{mA}; V_{CE} = -5\text{V}$	30			
$h_{FE-2}$	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$	40		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.1\text{A}; V_{CE} = -5\text{V}; f_{test} = 1.0\text{MHz}$	10			MHz

◆  $h_{FE-2}$  Classifications

S	R	Q
40-80	60-120	100-200