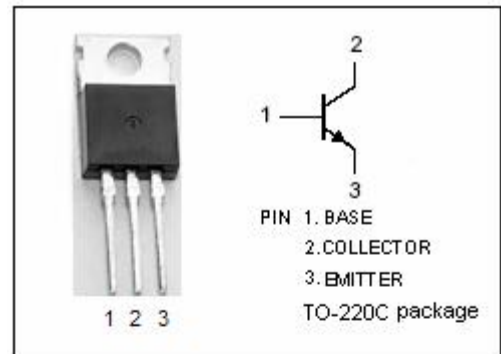


**isc Silicon NPN Power Transistor**
**BD907**
**DESCRIPTION**

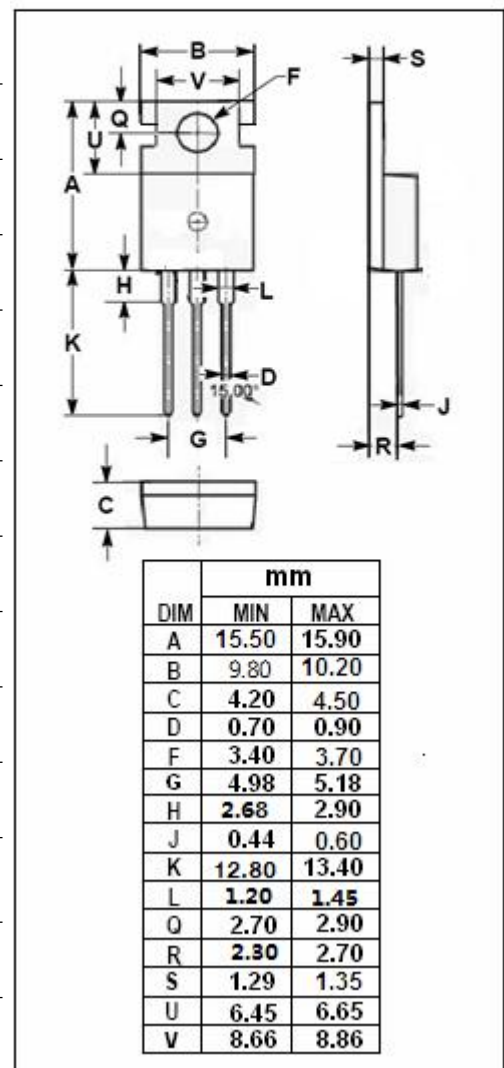
- DC Current Gain -  
:  $h_{FE} = 40 @ I_C = 0.5A$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 60V(\text{Min})$
- Complement to Type BD908
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in general purpose power amplifier and switching applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	15	A
$I_{CM}$	Collector Current-Peak	20	A
$I_B$	Base Current	5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	90	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$


**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.38	$^\circ\text{C/W}$

**isc Silicon NPN Power Transistor****BD907****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 50\text{mA} ; I_B= 0$	60		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 5\text{A} ; I_B= 0.5\text{A}$		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 10\text{A} ; I_B= 2.5\text{A}$		3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 10\text{A} ; I_B= 2.5\text{A}$		2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C= 5\text{A} ; V_{CE}= 4\text{V}$		1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 60\text{V} ; I_E= 0$		0.5	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}= 30\text{V} ; I_B= 0$		1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5\text{V} ; I_C= 0$		1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C= 0.5\text{A} ; V_{CE}= 4\text{V}$	40	250	
$h_{FE-2}$	DC Current Gain	$I_C= 5\text{A} ; V_{CE}= 4\text{V}$	15	150	
$h_{FE-3}$	DC Current Gain	$I_C= 10\text{A} ; V_{CE}= 4\text{V}$	5		
$f_T$	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A} ; V_{CE}= 4\text{V} ; f_{test}= 1.0\text{MHz}$	3.0		MHz

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