

**isc Silicon NPN Power Transistor**

**2N6122**

**DESCRIPTION**

- Collector-Emitter Sustaining Voltage-  
:  $V_{CE(sat)} = 0.6V(\text{Max.}) @ I_C = 1.5A$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 60V(\text{Min})$
- Complement to Type 2N6125

**APPLICATIONS**

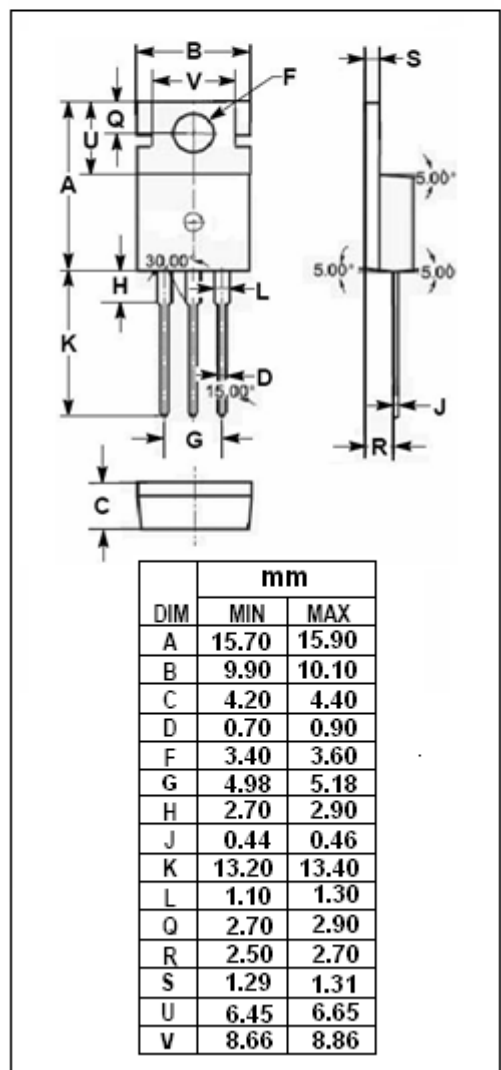
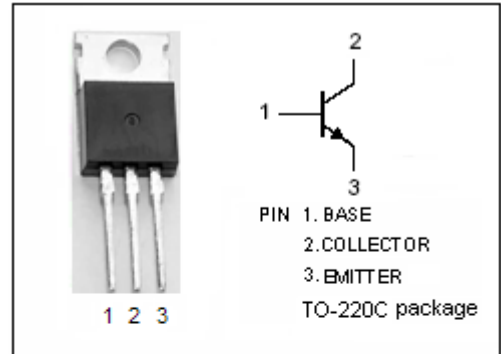
- Designed for use in power amplifier and switching circuits applications

**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	4	A
$I_{CM}$	Collector Current-Peak	8	A
$I_B$	Base Current	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	-65~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

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



**isc Silicon NPN Power Transistor****2N6122****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0$	60		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=1.5\text{A}; I_B=0.15\text{A}$		0.6	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=1.0\text{A}$		1.4	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=1.5\text{A}; V_{CE}=2\text{V}$		1.2	V
$I_{CEX}$	Collector Cutoff Current	$V_{CE}=60\text{V}; V_{BE(off)}=1.5\text{V}$ $V_{CE}=60\text{V}; V_{BE(off)}=1.5\text{V}; T_C=150^{\circ}\text{C}$		0.1 2.0	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=60\text{V}; I_B=0$		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	$I_C=1.5\text{A}; V_{CE}=2\text{V}$	25	100	
$h_{FE-2}$	DC Current Gain	$I_C=4\text{A}; V_{CE}=2\text{V}$	10		
$f_T$	Current-Gain—Bandwidth Product	$I_C=1.0\text{A}; V_{CE}=4\text{V}; f_{test}=1.0\text{MHz}$	2.5		MHz