

**isc Silicon NPN Power Transistor**

**2SC1514**

**DESCRIPTION**

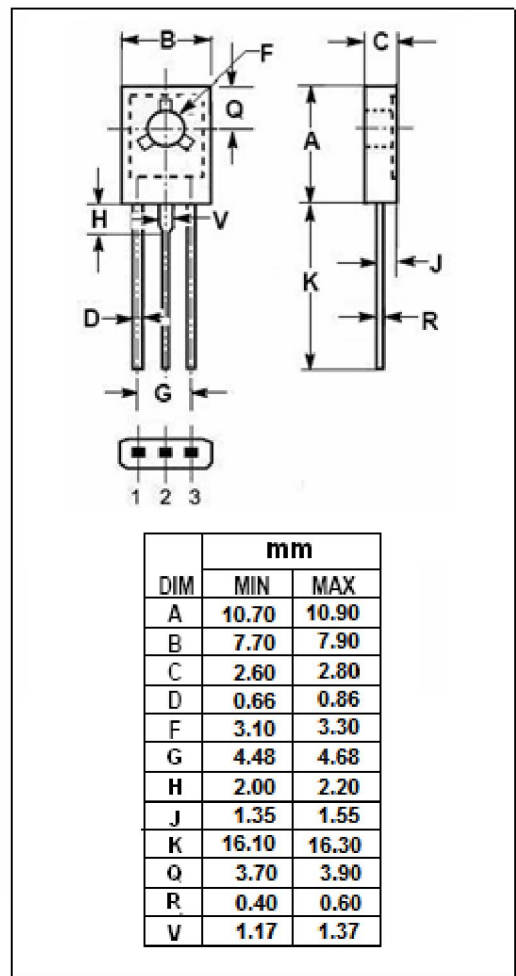
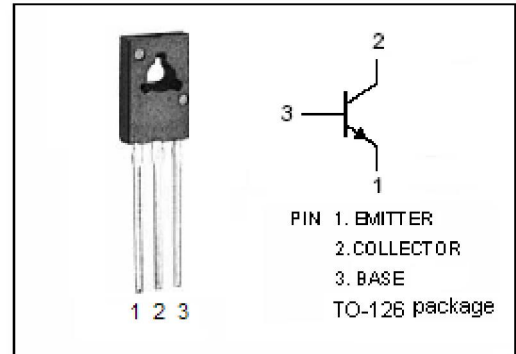
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 300V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Low Saturation Voltage

**APPLICATIONS**

- Designed for use in high frequency high voltage amplifier and TV video output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	300	V
$V_{CEO}$	Collector-Emitter Voltage	300	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	0.1	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	10	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.25	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-40~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SC1514****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=10\ \mu\text{A}; I_E=0$	300			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; R_{BE}=\infty$	300			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\ \mu\text{A}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=20\text{mA}; I_B=2\text{mA}$			1.5	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=250\text{V}; R_{BE}=\infty$			1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=20\text{mA}; V_{CE}=20\text{V}$	30		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C=20\text{mA}; V_{CE}=20\text{V}$		80		MHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=20\text{V}, f_{test}=1\text{MHz}$			4	pF