

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Power Transistor

2SC1514

DESCRIPTION

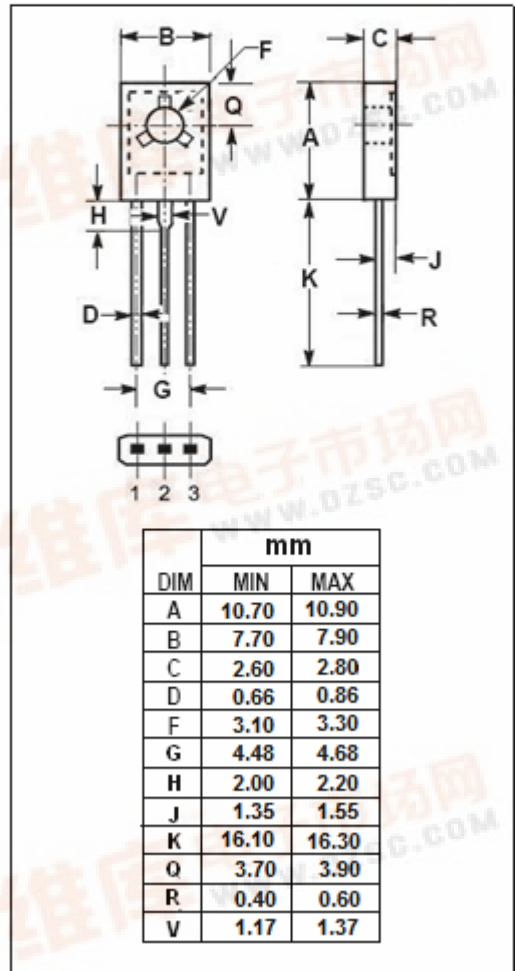
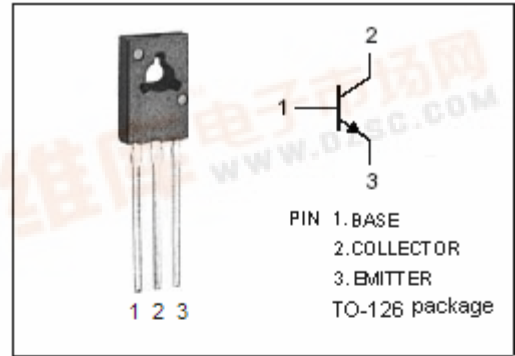
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 300V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage

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	μA
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