

**isc Silicon NPN Power Transistor**
**2SC1516**
**DESCRIPTION**

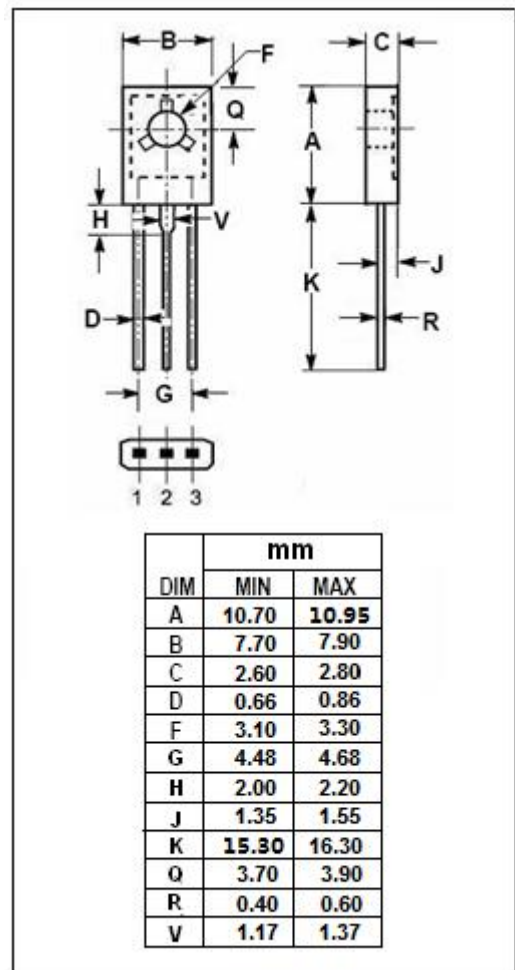
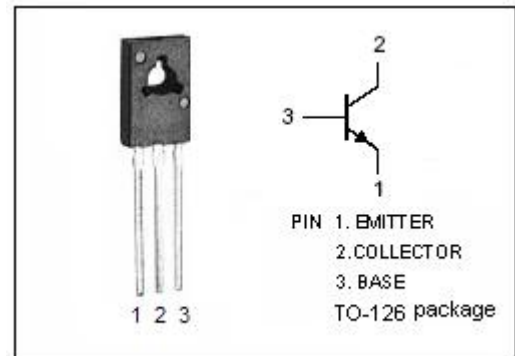
- High Collector Current  $I_C = 1.5A$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 35V(\text{Min})$
- Good Linearity of  $h_{FE}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for low frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	35	V
$V_{CEO}$	Collector-Emitter Voltage	35	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	1.5	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	1	W
	Collector Power Dissipation @ $T_a = 25^\circ C$	10	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



**isc Silicon NPN Power Transistor****2SC1516****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	$I_C=1\text{mA}; I_E=0$	35			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; R_{BE}=\infty$	35			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	$I_C=1.0\text{A}; I_B=0.1\text{A}$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=1.0\text{A}; I_B=0.1\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=35\text{V}; I_E=0$			100	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=500\text{mA}; V_{CE}=2\text{V}$	60		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C=200\text{mA}; V_{CE}=5\text{V}$		110		MHz

◆  **$h_{FE}$  Classifications**

B	C
60-120	100-200

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