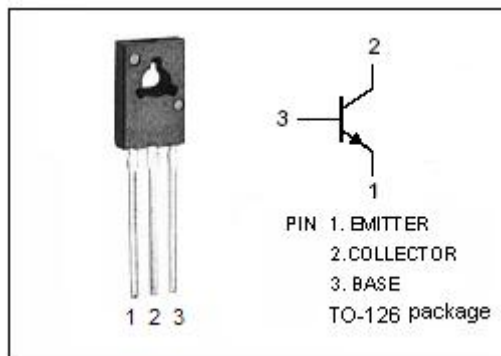


**isc Silicon NPN Power Transistor**
**2SC3502**
**DESCRIPTION**

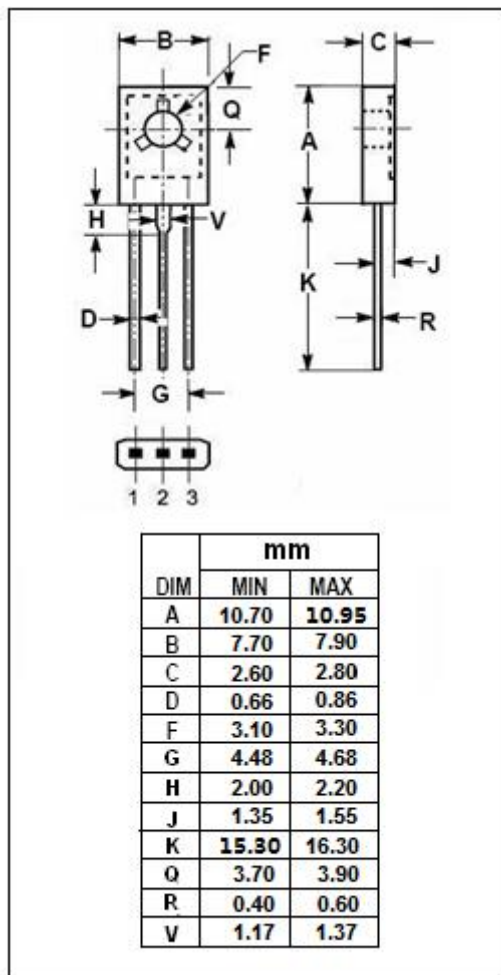
- Collector–Emitter Breakdown Voltage—  
:  $V_{(BR)CEO} = 200\text{ V}$
- Complement to Type 2SA1380
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for ultrahigh-definition CRT display, video output applications


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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	200	V
$V_{CEO}$	Collector-Emmitter Voltage	200	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	0.1	A
$I_{CM}$	Collector Current-Peak	0.2	A
$P_C$	Collector Power Dssipation $T_a=25^\circ\text{C}$	1.2	W
	Collector Power Dssipation $T_c=25^\circ\text{C}$	5	
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon NPN Power Transistor

## 2SC3502

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub> =25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 10 μA ; I <sub>E</sub> = 0	200			V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 1mA ; R <sub>BE</sub> = ∞	200			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 10 μA ; I <sub>C</sub> = 0	5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 20mA ; I <sub>B</sub> = 2mA			0.6	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 20mA ; I <sub>B</sub> = 2mA			1.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 150V; I <sub>E</sub> = 0			0.1	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 4V; I <sub>C</sub> = 0			0.1	μA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 10mA ; V <sub>CE</sub> = 10V	40		320	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 10mA; V <sub>CE</sub> = 30V;		150		MHz
C <sub>OB</sub>	Collector Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 30V; f <sub>test</sub> = 1MHz		1.7		pF

◆ h<sub>FE</sub> Classifications

C	D	E	F
40-80	60-120	100-200	160-320

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