

isc Silicon NPN Power Transistor

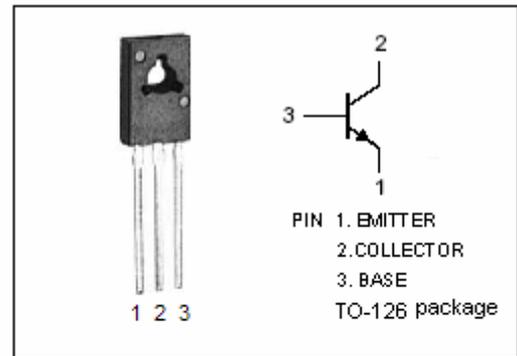
2SC3502

DESCRIPTION

- Collector–Emitter Breakdown Voltage—  
:  $V_{(BR)CEO} = 200\text{ V}$
- Complement to Type 2SA1380

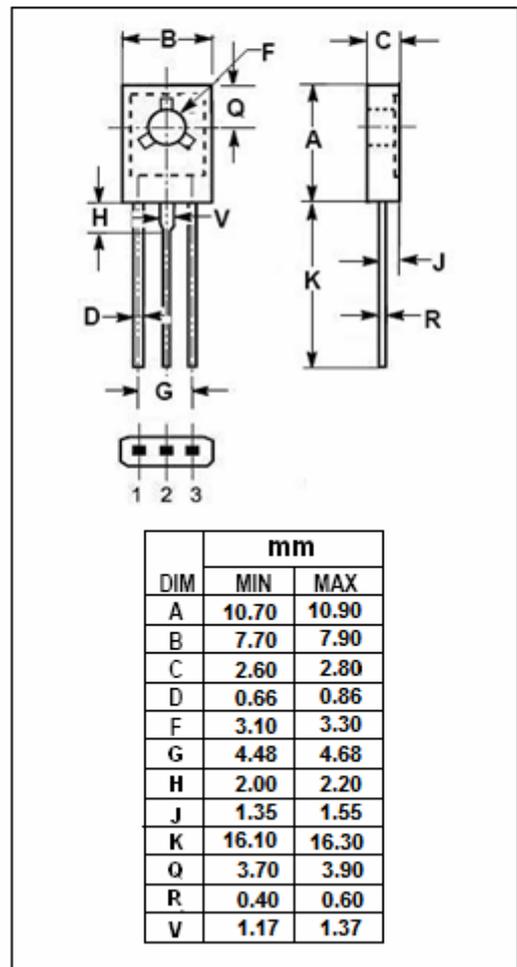
APPLICATIONS

- 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	
$T_i$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon NPN Power Transistor

## 2SC3502

## ELECTRICAL CHARACTERISTICS

 $T_C = 25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 10\ \mu\text{A}$ ; $I_E = 0$	200			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 1\text{mA}$ ; $R_{BE} = \infty$	200			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	$I_C = 20\text{mA}$ ; $I_B = 2\text{mA}$			0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 20\text{mA}$ ; $I_B = 2\text{mA}$			1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 150\text{V}$ ; $I_E = 0$			0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 4\text{V}$ ; $I_C = 0$			0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C = 10\text{mA}$ ; $V_{CE} = 10\text{V}$	40		320	
$f_T$	Current-Gain—Bandwidth Product	$I_C = 10\text{mA}$ ; $V_{CE} = 30\text{V}$ ;		150		MHz
$C_{OB}$	Collector Capacitance	$I_E = 0$ ; $V_{CB} = 30\text{V}$ ; $f_{test} = 1\text{MHz}$		1.7		pF

◆  $h_{FE}$  Classifications

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