

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Power Transistor

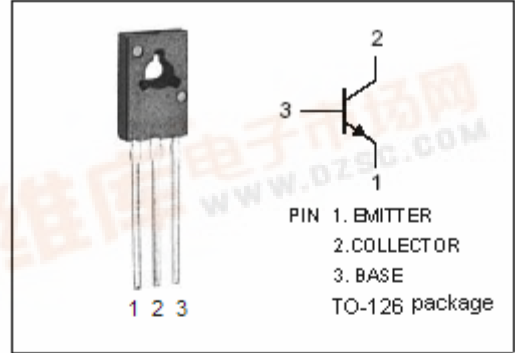
2SC3502

DESCRIPTION

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

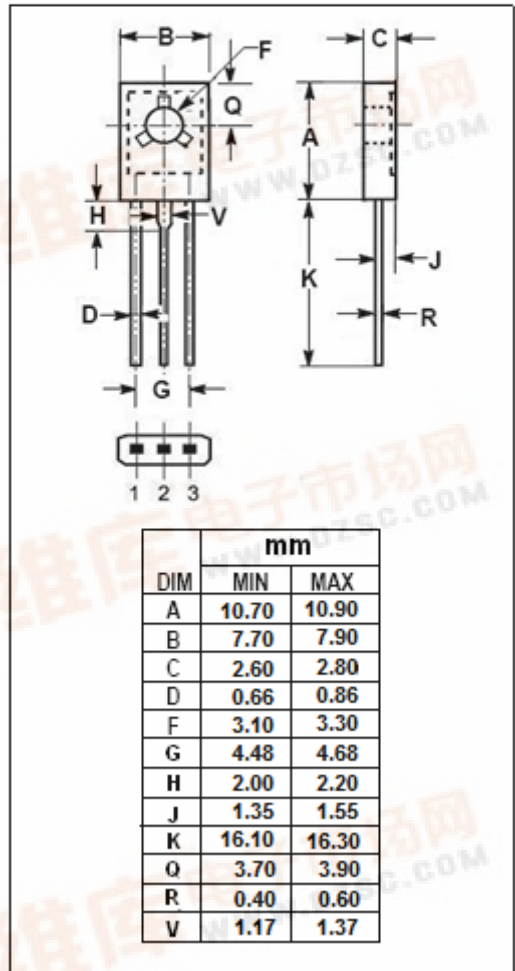
APPLICATIONS

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



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter 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	$^\circ\text{C}$



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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	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 4\text{V}$; $I_C = 0$			0.1	μA
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