

**Silicon NPN Power Transistor**

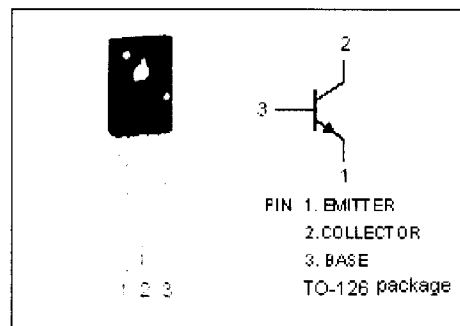
**2SC2258**

**DESCRIPTION**

- High Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = 250V(\text{Min})$
- High Current-Gain Bandwidth Product

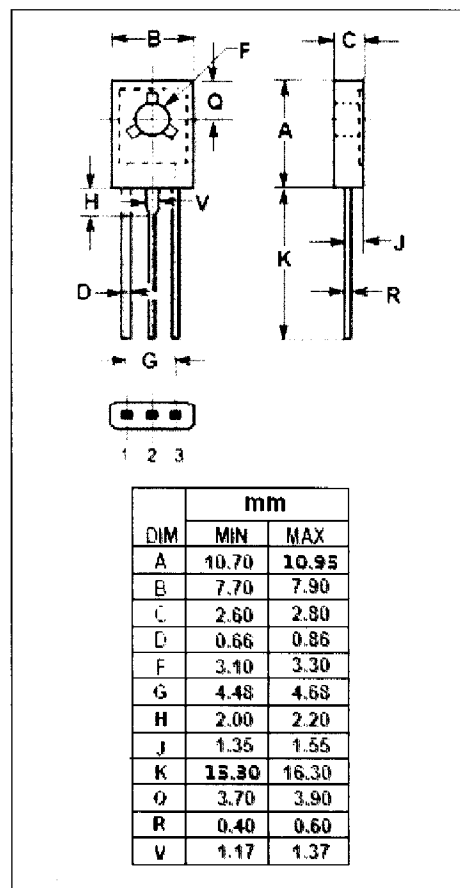
**APPLICATIONS**

- For high breakdown voltage general amplification
- For video output amplification



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	250	V
$V_{CEO}$	Collector-Emitter Voltage	250	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	0.1	A
$I_{CM}$	Collector Current-Peak	0.15	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	4	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.2	
$T_J$	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
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 0.1\text{mA}; I_C = 0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50\text{mA}; I_B = 5\text{mA}$			1.2	V
$V_{BE(on)}$	Collector-Emitter On Voltage	$I_C = 40\text{mA}; V_{CE} = 20\text{V}$			1.2	V
$I_{CER}$	Collector Cutoff Current	$V_{CE} = 250\text{V}; R_{BE} = 100\text{k}\Omega$			100	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = 40\text{mA}; V_{CE} = 20\text{V}$	40			
$h_{FE-2}$	DC Current Gain	$I_C = 5\text{mA}; V_{CE} = 50\text{V}$	30			
$f_T$	Current-Gain—Bandwidth Product	$I_E = -10\text{mA}; V_{CB} = 10\text{V}; f_{test} = 200\text{MHz}$		100		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = 50\text{V}; f_{test} = 1\text{MHz}$		3		pF