

**isc Silicon NPN Power Transistor**

**2SC5248**

**DESCRIPTION**

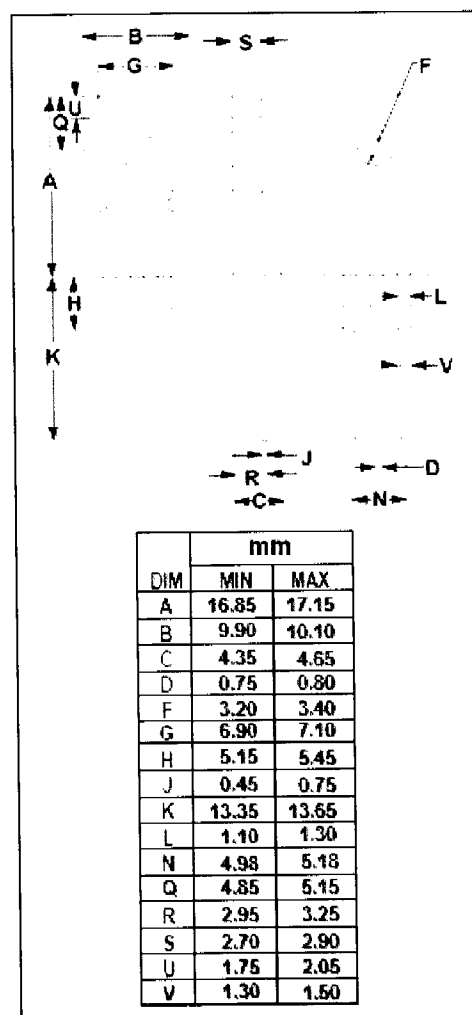
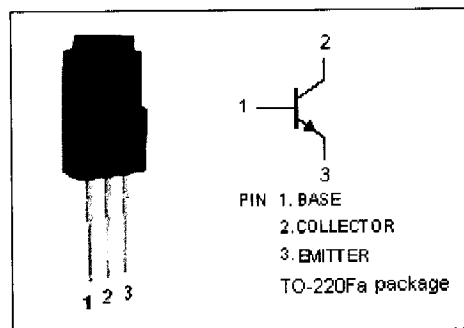
- Collector-Emitter Breakdown Voltage-  
 :  $V_{(BR)CEO} = 160V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Wide Area of Safe Operation
- Complement to Type 2SA1964

**APPLICATIONS**

- Power amplifier applications.
- Driver stage amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	160	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	1.5	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	20	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$



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### ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	160			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=50\ \mu\text{A}; I_E=0$	160			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=50\ \mu\text{A}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.1\text{A}$			1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=160\text{V}; I_E=0$			1.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1.0	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=5\text{V}$	60		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.2\text{A}; V_{CE}=10\text{V}$		150		MHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		20		pF

#### ◆ $h_{FE}$ Classifications

D	E
60-120	100-200