

**Silicon PNP Power Transistor**

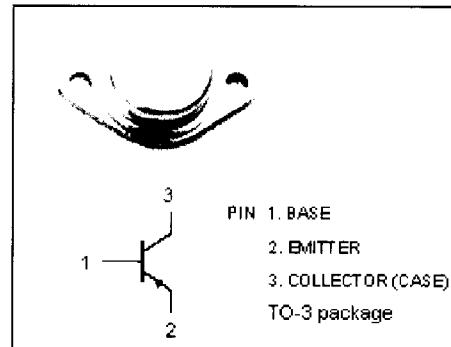
**2SA658**

**DESCRIPTION**

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -50V(\text{Min.})$
- Complement to Type 2SC521

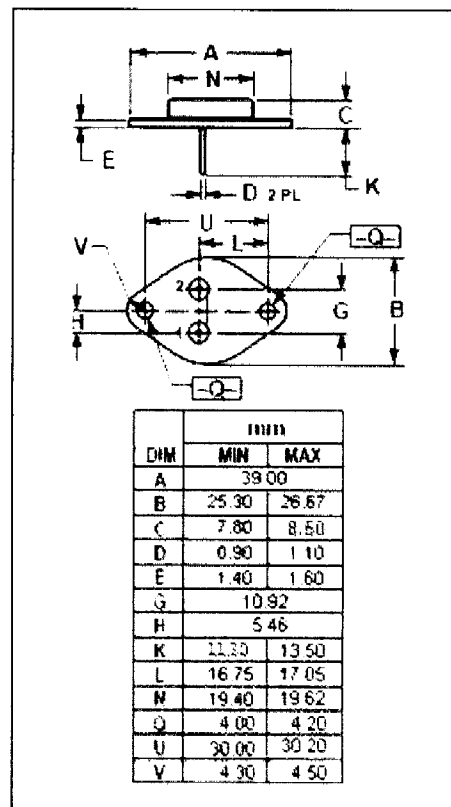
**APPLICATIONS**

- Power amplifier applications.
- Power switching applications.
- DC-DC converter applications.
- Regulator applications.

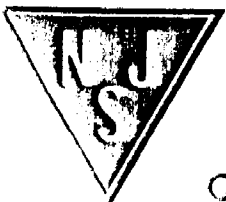


**ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-70	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-7	A
$I_B$	Base Current	-2	A
$P_C$	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	50	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-65~150	$^\circ\text{C}$



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**Silicon PNP Power Transistor****2SA658****ELECTRICAL CHARACTERISTICS****T<sub>j</sub>=25°C unless otherwise specified**

<b>SYMBOL</b>	<b>PARAMETER</b>	<b>CONDITIONS</b>	<b>MIN</b>	<b>TYP.</b>	<b>MAX</b>	<b>UNIT</b>
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}; I_B = 0$	-50			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -1\text{A}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -1\text{A}$			-2.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -70\text{V}; I_E = 0$			-0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-5	mA
$h_{FE-1}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	30		300	
$h_{FE-2}$	DC Current Gain	$I_C = -5\text{A}; V_{CE} = -5\text{V}$	15			
$C_{OB}$	Collector Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1\text{MHz}$		150		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C = -1\text{A}; V_{CE} = -10\text{V}$		5		MHz