

# New Jersey Semi-Conductor Products, Inc.

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## Silicon PNP Power Transistor

## 2SA1329

### DESCRIPTION

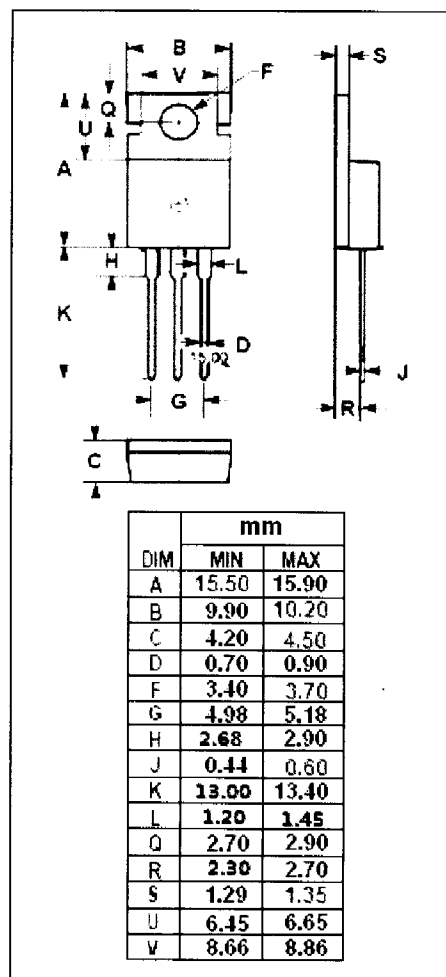
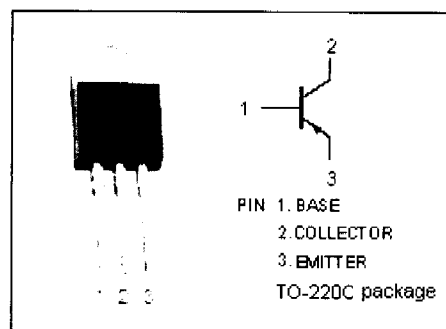
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -0.4(V)(Max) @ I_C = -6A$
- High Switching Speed
- Complement to Type 2SC3346

### APPLICATIONS

- Designed for high current switching applications.

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-12	A
$I_B$	Base Current-Continuous	-2	A
$P_C$	Total Power Dissipation @ $T_C=25^\circ C$	40	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



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Quality Semi-Conductors

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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}; I_B = 0$	-80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -6\text{A}; I_B = -0.3\text{A}$			-0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -6\text{A}; I_B = -0.3\text{A}$			-1.2	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{V}; I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -6\text{V}; I_C = 0$			-10	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -1\text{V}$	70		240	
$h_{FE-2}$	DC Current Gain	$I_C = -6\text{A}; V_{CE} = -1\text{V}$	40			
$f_T$	Current-Gain—Bandwidth Product	$I_C = -1\text{A}; V_{CE} = -5\text{V}$		50		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f_{test} = 1\text{MHz}$		400		pF

## Switching Times

$t_{on}$	Turn-on Time	$R_L = 5\Omega; I_{B1} = -I_{B2} = -0.3\text{A}; V_{CC} = -30\text{V}; \text{Duty Cycle} \leq 1\%$		0.3		$\mu\text{s}$
$t_{stg}$	Storage Time			1.0		$\mu\text{s}$
$t_f$	Fall Time			0.5		$\mu\text{s}$

◆  $h_{FE-1}$  Classifications

O	Y
70-140	120-240