

**Silicon PNP Power Transistor**

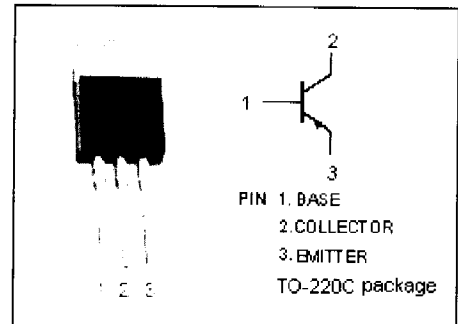
**2SA1129**

**DESCRIPTION**

- Low Collector Saturation Voltage  
 $V_{CE(sat)} = -0.3(V)(Max) @ I_C = -3A$
- Large Current Capability  $-I_C = -7A$
- Complement to Type 2SC2654

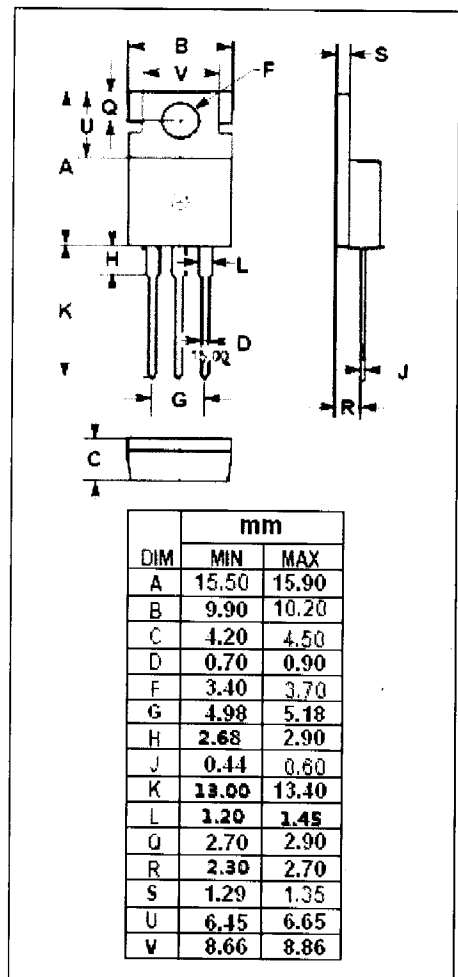
**APPLICATIONS**

- Designed for mid-switching applications, and is ideal for use as a ramp driver.

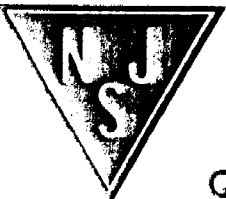


**ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ C$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-30	V
$V_{CEO}$	Collector-Emitter Voltage	-30	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-7	A
$I_{CM}$	Collector Current-Peak	-15	A
$I_B$	Base Current-Continuous	-3.5	A
$P_C$	Total Power Dissipation @ $T_a = 25^\circ C$	1.5	W
	Total Power Dissipation @ $T_c = 25^\circ C$	40	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55-150	$^\circ C$



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -3A; I_B = -0.1A$			-0.3	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -5A; I_B = -0.5A$			-0.6	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C = -3A; I_B = -0.1A$			-1.5	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C = -5A; I_B = -0.5A$			-2.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -30V; I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5V; I_C = 0$			-10	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -3A; V_{CE} = -1V$	40		200	
$h_{FE-2}$	DC Current Gain	$I_C = -5A; V_{CE} = -1V$	20			

### Switching Times

$t_{on}$	Turn-on Time	$I_C = -5A, R_L = 4\Omega, V_{CC} = -20V;$ $I_{B1} = -I_{B2} = -0.5A,$ $P_W = 50\mu\text{s}; \text{Duty Cycle} = 2\%$			1.0	$\mu\text{s}$
$t_{stg}$	Storage Time				2.5	$\mu\text{s}$
$t_f$	Fall Time				1.0	$\mu\text{s}$

### ◆ $h_{FE-1}$ Classifications

M	L	K
40-80	60-120	100-200