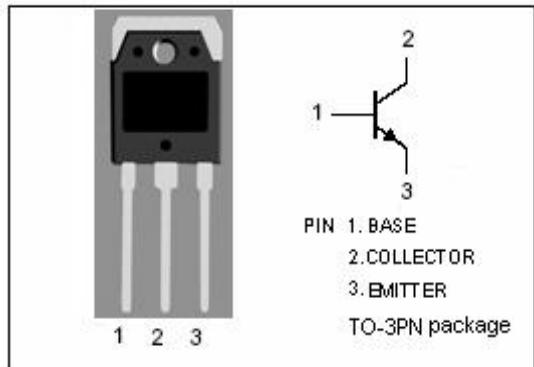


**DESCRIPTION**

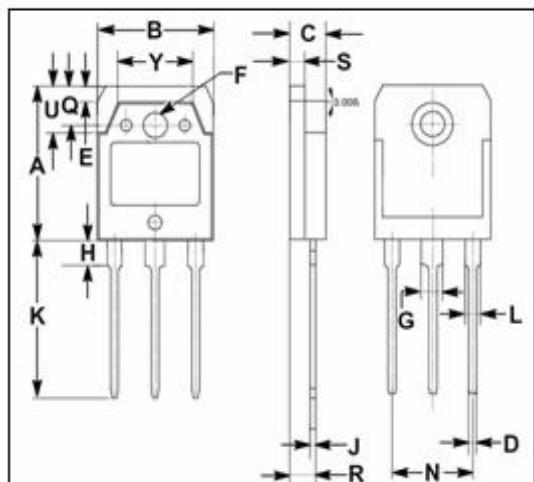
- Low Collector Saturation Voltage
- Good Linearity of  $h_{FE}$
- High Switching Speed
- Complement to Type 2SA1292
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**APPLICATIONS**

- Various inductance lamp drivers for electrical equipment
- Inverters, converters
- Power amplifier
- Switching regulator, dirver

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	80	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_c$	Collector Current-Continuous	15	A
$I_{CM}$	Collector Current-Pulse	20	A
$P_c$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	80	W
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-55~150	°C



DIM	mm	
	MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

## ELECTRICAL CHARACTERISTICS

 $T_c=25^\circ C$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_c = 1\text{mA}$ ; $R_{BE} = \infty$	60			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_c = 1\text{mA}$ ; $I_E = 0$	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}$ ; $I_c = 0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_c = 7.5\text{A}$ ; $I_B = 0.375\text{A}$			0.4	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 40\text{V}$ ; $I_E = 0$			100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 4\text{V}$ ; $I_c = 0$			100	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_c = 1\text{A}$ ; $V_{CE} = 2\text{V}$	70		280	
$f_T$	Current-Gain—Bandwidth Product	$I_c = 1\text{A}$ ; $V_{CE} = 5\text{V}$		100		MHz

Switching times

$t_{on}$	Turn-on Time	$I_c = 6\text{A}$ ; $I_{B1} = -I_{B2} = 0.3\text{A}$ ; $R_L = 3.3\Omega$ ; $V_{CC} = 20\text{V}$		0.1		$\mu\text{s}$
$t_{stg}$	Storage Time			0.5		$\mu\text{s}$
$t_f$	Fall Time			0.1		$\mu\text{s}$

◆  $h_{FE}$  Classifications

Q	R	S
70-140	100-200	140-280

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