

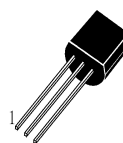
APPLICATIONS

HIGH CURRENT APPLICATIONS.

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

T_{stg}	Storage Temperature	-55~150 $^\circ\text{C}$
T_j	Junction Temperature	150 $^\circ\text{C}$
P_C	Collector Dissipation	600mW
V_{CBO}	Collector-Base Voltage	35V
V_{CEO}	Collector-Emitter Voltage	30V
V_{EBO}	Emitter-Base Voltage	5V
I_C	Collector Current	800mA

TO-92



1—Emitter, E
2—Collector, C
3—Base, B

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	35			V	$I_C=100\ \mu\text{A}$, $I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	30			V	$I_C=10\text{mA}$, $I_B=0$
BV_{EBO}	Emitter-Base Breakdown Voltage	5			V	$I_E=1\text{mA}$, $I_C=0$
$H_{\text{FE}}(1)$	DC Current Gain	100		320		$V_{\text{CE}}=1\text{V}$, $I_C=100\text{mA}$
$H_{\text{FE}}(2)$	DC Current Gain	35				$V_{\text{CE}}=1\text{V}$, $I_C=700\text{mA}$
$V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage			0.5	V	$I_C=500\text{mA}$, $I_B=20\text{mA}$
V_{BE}	Base-Emitter Voltage	0.5		0.8	V	$V_{\text{CE}}=1\text{V}$, $I_C=10\text{mA}$
I_{CBO}	Collector Cut-off Current			100	nA	$V_{\text{CB}}=35\text{V}$, $I_E=0$
I_{EBO}	Emitter Cut-off Current			100	nA	$V_{\text{EB}}=5\text{V}$, $I_C=0$
f_T	Current Gain-Bandwidth Product		120		MHz	$V_{\text{CE}}=5\text{V}$, $I_C=10\text{mA}$
C_{ob}	Output Capacitance		13		pF	$V_{\text{CB}}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$

H_{FE} Classification

O

Y

100—200

160—320