



Micro Commercial Components

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MJE13002

Features

- Capable of 1.25Watts of Power Dissipation.
- Collector-current 1.0A
- Collector-base Voltage 600V
- Operating and storage junction temperature range: -55°C to +150°C
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking: 3DD13002

NPN Silicon Plastic-Encapsulate Transistor

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=1.0mA$, $I_B=0$)	400		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	600		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	6.0		Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=600Vdc$, $I_E=0$)		100	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=6.0Vdc$, $I_C=0$)		100	μA

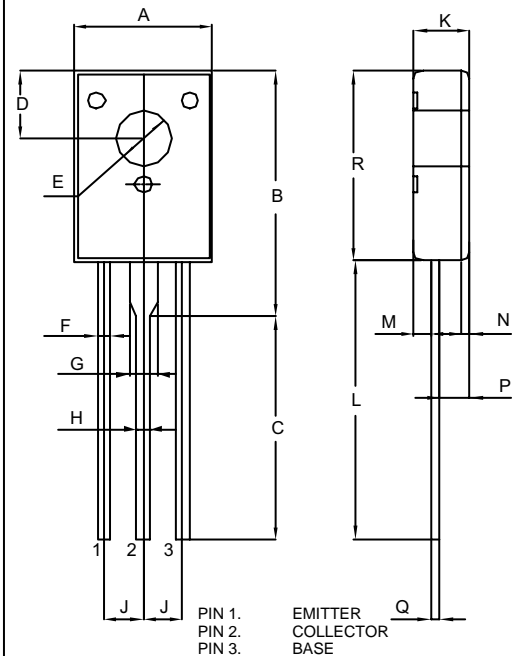
ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=100mA$, $V_{CE}=10Vdc$)	8.0	60	
$h_{FE(2)}$	DC Current Gain ($I_C=200mA$, $V_{CE}=10Vdc$)	9.0	40	
$h_{FE(3)}$	DC Current Gain ($I_C=10mA$, $V_{CE}=10Vdc$)	6.0		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=200mA$, $I_B=40mA$)		0.8	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=200mA$, $I_B=40mA$)		1.1	Vdc

SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C=100mA$, $V_{CE}=10Vdc$, $f=1.0MHz$)	5.0		MHz
t_F	Fall Time	$V_{CC}=100V$, $I_C=1.0A$,	0.5	μS
t_S	Storage Time	$I_{B1}=I_{B2}=0.2A$	2.5	μS

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DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.30	0.33	7.70	8.30	
B		0.56		14.20	
C	0.50	0.53	12.76	13.36	
D	0.15	0.16	3.80	4.0	
E	0.12	0.13	3.10	3.30	
F	0.025	0.033	0.65	0.85	
G	0.06	0.07	1.50	1.70	
H	0.025	0.033	0.65	0.85	
J	0.08	0.10	2.08	2.48	
K	0.12	0.14	3.05	3.45	
L	0.63	0.64	15.90	16.30	
M		0.04		1.0	
N		0.02		0.5	
P	0.06	0.08	1.55	1.95	
Q	0.018	0.023	0.45	0.60	
R	0.43	0.44	10.80	11.20	



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