



Micro Commercial Components

Micro Commercial Components
 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

2SA1013-R
2SA1013-O
2SA1013-Y

PNP
Epitaxial Silicon
Transistor

Features

- Lead Free Finish/Rohs Compliant ("P" Suffix designates Compliant. See ordering information)
- Capable of 0.9Watts of Power Dissipation.
- Collector-current -1.0A
- Collector-base Voltage -160V
- Operating and storage junction temperature range: -55°C to +150°C
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
--------	-----------	-----	-----	-------

OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=-1.0mA$, $I_B=0$)	-160	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-100\mu A$, $I_E=0$)	-160	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=-10mA$, $I_C=0$)	-6.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=-150Vdc$, $I_E=0$)	---	-1.0	μA
I_{CEO}	Collector Cutoff Current ($V_{CB}=-120Vdc$, $I_E=0$)	---	-10	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=-6.0Vdc$, $I_C=0$)	---	-1.0	μA

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=-200mA$, $V_{CE}=-5.0Vdc$)	65	310	---
$h_{FE(2)}$	DC Current Gain ($I_C=-50mA$, $V_{CE}=-5.0Vdc$)	40	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=-500mA$, $I_B=-50mA$)	---	-1.5	Vdc
V_{BE}	Base-Emitter Saturation Voltage ($I_C=-5.0mA$, $V_{CE}=-5.0Vdc$)	---	-0.75	Vdc

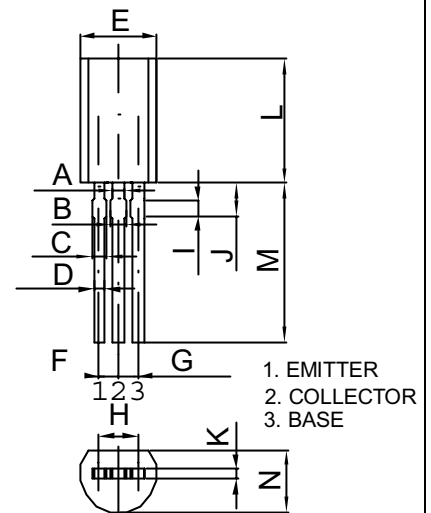
SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C=-200mA$, $V_{CE}=-5.0Vdc$, $f=30MHz$)	-15	---	MHz
-------	--	-----	-----	-----

CLASSIFICATION OF $h_{FE(1)}$

Rank	R	O	Y
Range	60-120	120-200	200-300

TO-92MOD



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	---	.030	---	.750	
B	---	.039	---	1.00	
C	---	.031	---	.80	
D	---	.024	---	0.60	
E	---	.201	---	5.10	
F	.050		1.27		
G	.050		1.27		
H	.100		2.54		
I	.039		1.00		
J	---	.087	---	2.20	
K	---	.024	---	.60	
L	---	.323	---	8.20	
M	---	.413	---	10.50	
N	---	.161	---	4.10	



Micro Commercial Components

Ordering Information

Device	Packing
(Part Number)-BP	Bulk;500pcs/Bag

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

*****APPLICATIONS DISCLAIMER*****

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.