

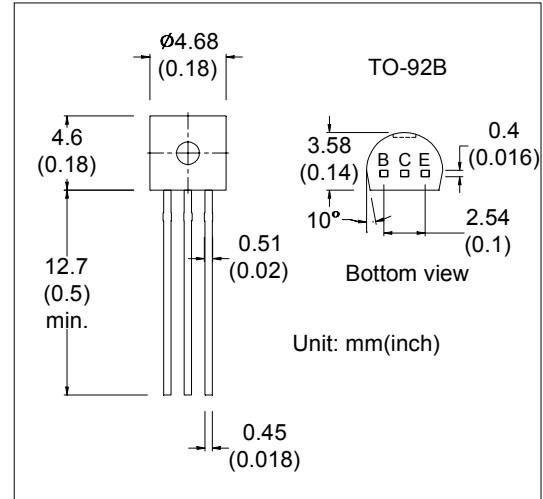
MELECTRONICS MICRO

2SD1616A

NPN
SILICON
TRANSISTOR

DESCRIPTION

2SD1616A is NPN silicon planar transistor designed for use in driver and output stages of AF amplifier, general purpose application.



ABSOLUTE MAXIMUM RATINGS

Collector-Emitter Voltage
Collector-Base Voltage
Emitter-Base Voltage
Collector Current Continuous
Total Power Dissipation @ Ta=25°C
Operating & Storage Junction Temperature

V_{CE} 60V
V_{CB0} 120V
V_{EB0} 6V
I_C 1A
P_{tot} 0.65W
T_j, T_{stg} -55 to +150°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	CONDITIONS
Collector Cutoff Current	I _{CB0}		100	nA	V _{CB} =60V I _E =0
Emitter Cutoff Current	I _{EB0}		100	nA	V _{EB} =6V I _C =0
D.C. Current Gain	H _{FE} *	170	350		V _{CE} =2V I _C =100mA
D.C. Current Gain	H _{FE} *	45			V _{CE} =2V I _C =1A
Base-Emitter Voltage	V _{BE} *	600	700	mV	V _{CE} =2V I _C =50mA
Collector-Emitter Saturation Voltage	V _{CE(sat)} *		0.5	V	I _C =1A I _B =50mA
Base-Emitter Saturation Voltage	V _{BE(sat)} *		1.2	V	I _C =1A I _B =50mA
Output Capacitance	C _{ob}	19	TYP.	pF	V _{CB} =10V I _E =0
Gain Bandwidth Product	f _T	100		MHz	V _{CE} =2V I _C =100mA
Turn-On Time	t _{on}	0.07	TYP.	μs	V _{cc} =10V I _C =100mA
Storage Time	t _{stg}	0.95	TYP.	μs	I _{B1} =-I _{B2} =10mA
Fall Time	t _f	0.07	TYP.	μs	V _{BE(off)} =-2 to 3V

* Pulse test PW ≤ 350μs, duty cycle ≤ 2%.



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