

MICRO

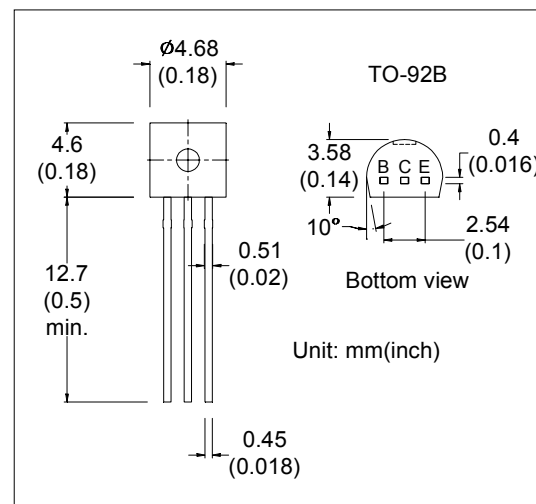
ELECTRONICS

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

VCE 60V
VCBO 120V
VEBO 6V
IC 1A
Ptot 0.65W
Tj, Tstg -55 to +150°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	CONDITIONS
Collector Cutoff Current	ICBO		100	nA	VCB=60V IE=0
Emitter Cutoff Current	IEBO		100	nA	VEB=6V IC=0
D.C. Current Gain	HFE *	170	350		VCE=2V IC=100mA
D.C. Current Gain	HFE *	45			VCE=2V IC=1A
Base-Emitter Voltage	VBE *	600	700	mV	VCE=2V IC=50mA
Collector-Emitter Saturation Voltage	VCE(sat) *		0.5	V	IC=1A IB=50mA
Base-Emitter Saturation Voltage	VBE(sat) *		1.2	V	IC=1A IB=50mA
Output Capacitance	Cob	19	TYP.	pF	VCB=10V IE=0
Gain Bandwidth Product	fT	100		MHz	VCE=2V IC=100mA
Turn-On Time	ton	0.07	TYP.	μs	Vcc=10V IC=100mA
Storage Time	tstg	0.95	TYP.	μs	IB1=-IB2=10mA
Fall Time	tf	0.07	TYP.	μs	VBE(off)=-2 to 3V

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



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