

TO-92 Plastic-Encapsulate Transistors

FEATURES

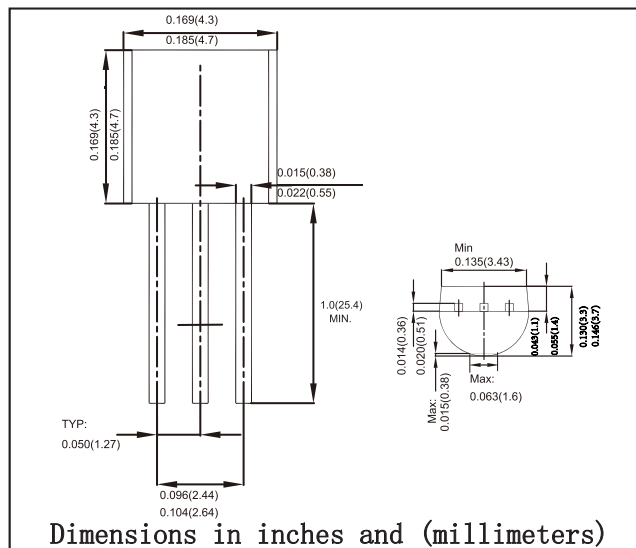
- High Collector Power Dissipation
- Complementary to 2SD1616/2SD1616A
- TRANSISTOR (PNP)

MECHANICAL DATA

- Case style: TO-92 molded plastic
- Mounting position: any

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)



Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-60 -80	V
Collector-Emitter Voltage	V_{CEO}	-50 -60	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current -Continuous	I_C	-1	A
Collector Power Dissipation	P_C	0.75	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	2SB1116 -60 2SB1116A -80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	2SB1116 -50 2SB1116A -60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$	2SB1116		-0.1	μA
		$V_{CB} = -60V, I_E = 0$	2SB1116A			
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2V, I_C = -0.1A$	135		600	
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -1A$	81			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1A, I_B = -50mA$			-0.3	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1A, I_B = -50mA$			-1.2	V
Base -emitter voltage	V_{BE}	$V_{CE} = -2V, I_C = -0.05A$	-0.6		-0.7	
Transition frequency	f_T	$V_{CE} = -2V, I_C = -0.1A$	70			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		25		pF
Turn-on time	t_{on}	$V_{CC} = -10V, I_C = -0.1A, I_{B1} = -I_{B2} = -0.01A, V_{BE(Off)} = 2to3V$		0.07		us
Storage time	t_s			0.7		us
Fall time	t_f			0.07		us

RATINGS AND CHARACTERISTIC CURVES

