

Maximum Ratings, Absolute-Maximum Values

COLLECTOR-TO-BASE VOLTAGE, V_{CB0}	80
COLLECTOR-TO-EMITTER VOLTAGE: With base open, V_{CE0}	60
With $V_{BE} = -1.5$ volts, V_{CEV}	80
EMITTER-TO-BASE VOLTAGE, V_{EB0}	4
COLLECTOR CURRENT, I_C	2.5
TRANSISTOR DISSIPATION, P_T : At case } up to 25°C 17.5	
temperatures } above 25°C Derate linearly 100mW/°C	

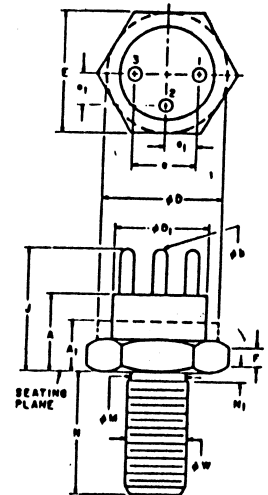
TEMPERATURE RANGE: Storage	-65to+200	-65to+200	°C
Operating (Junction)	-65to+200	-65to+200	°C
LEAD TEMPERATURE (During soldering): At distances $\geq 1/32"$ from ceramic wafer for 10 sec. max.	230	max.	°C
At distances $\geq 1/32"$ from seating surface for 10 sec. max.	230	max.	°C

ELECTRICAL CHARACTERISTICS Case Temperature = 25° C Unless Otherwise Specified

Characteristic	Symbol	TEST CONDITIONS						LIMITS		Units
		DC Collector Volts		DC Base Volts	DC Current (Milliamperes)			2N2876		
		V_{CB}	V_{CC}	V_{BE}	I_E	I_B	I_C	Min.	Max.	
Collector-Cutoff Current	I_{CBO}	30			0			-	0.1	μA
Collector-to-Base Breakdown Voltage	BV_{CB0}				0	0.5	80	-		volts
Collector-to-Emitter Breakdown Voltage (Sustaining)	$BV_{CEO(sus)}$				0	500*	60	-		volts
Collector-to-Emitter Breakdown Voltage	BV_{CEV}			-1.5		0.1	80	-		volts
Emitter-to-Base Breakdown Voltage	BV_{EB0}				0.1	0	4	-		volts
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$				300	1.5 amp	-	-		volt
					500	2.5 amp	-	1		volt
Feedback Capacitance (Measured at 140 Kc)	$C_{b'c}$	30			0			-	20	pf
RF Power Output, Unneutralized	P_{out}						500	10 ^a	-	watts
		Measured at 50 Mc	28				375	-	-	watts
		50 Mc	28				275	3 ^b	-	watts
Gain-Bandwidth Product	f_T	28				250	200 (typ.)			Mc
Base Spreading Resistance (Measured at 400 Mc)	$r_{bb'}$	28				250	6.0 (typ.)			ohms
Collector-to-Case Capacitance	C_c							-	6	pf

* Pulsed. Pulse duration $\leq 5 \mu sec$; duty factor $\leq 1\%$.
^a For $P_{TJN} = 2$ watts.
^b For $P_{TJN} = 1$ watt.

TO-60

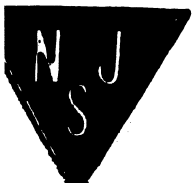


SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	0.210	0.320	5.46	8.13	
A ₁	-	0.100	-	4.19	2
ϕD	0.830	0.048	7.93	1.17	4
ϕO_1	0.320	0.380	8.13	9.64	2
E	0.424	0.437	10.77	11.10	
ϕ	0.180	0.210	4.70	5.40	
ϕ_1	0.090	0.110	2.29	2.79	
P	0.090	0.138	2.29	3.43	1
J	0.350	0.400	9.02	12.19	
ϕM	0.183	0.189	4.64	4.80	
N	0.378	0.408	9.53	11.90	
N ₁	-	0.078	-	1.98	
ϕW	0.1694	0.1697	4.212	4.310	3, 8

MILLIMETER DIMENSIONS ARE DERIVED FROM ORIGINAL INCH DIMENSIONS

NOTES:

- Dimension does not include seating flanges
- Package outline optional with dimensions specified
- Pitch diameter - 10-32 UNF 2A thread (coated)
- Pin spacing permits insertion in any socket having a pin-circle diameter of 0.200 in. (5.08 mm) and contacts which will accommodate pins with a diameter of 0.030 in. (0.762 mm) min., 0.046 in. (1.17 mm) max.
- The torque applied to a 10-32 hex nut assembled on the thread during installation should not exceed 12 inch-pounds.



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