

**MILITARY APPROVED
LOW LEVEL SWITCHING
SILICON EPITAXIAL JUNCTION
PNP TRANSISTORS**

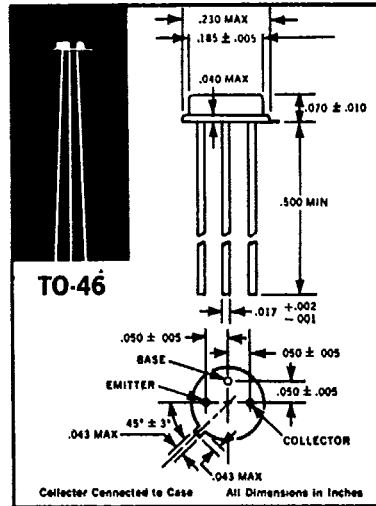
**2N2944A
2N2945A
2N2946A
and JAN,
JTX, JTXV**

**AVAILABLE AS JAN, JAN-TX, JAN-TXV
GEOMETRY 292**

- ULTRA LOW LEAKAGE
- LOW C_{ob}
- LOW r_{EC} (sat)
- HIGH BV_{EBO}

ELECTRICAL DATA ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	2N2944A	2N2945A	2N2946A	UNITS
Collector To Emitter Voltage	BV_{CE0}	10	20	35	Volts
Collector To Base Voltage	BV_{CBO}	15	25	40	Volts
Emitter To Base Voltage	BV_{EBO}	15	25	40	Volts
Collector Current	I_C	100	100	100	mA
Total Power Dissipation (free air)	P_D	400	400	400	mW
Storage Temp. (max)	T_{stg}	200	200	200	°C
Operation Temp. (max)	T_{opr}	200	200	200	°C
Lead Temp (@ 1/16 - 1/32 from case)	T_L	240° for 10 sec			
Derating Factor	D_F	2.3	2.3	2.3	mW/°C



ELECTRICAL CHARACTERISTICS: $T_A = 25^\circ\text{C}$ (UNLESS OTHERWISE STATED)

PARAMETER	SYMBOL	CONDITIONS	2N2944A			2N2945A			2N2946A			UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Collector Leakage	I_{CBO}	At Max Rated Voltage	—	0.01	0.1	—	0.02	0.2	—	0.04	0.5	nA
Emitter Leakage	I_{EBO}	At Max Rated Voltage	—	0.01	0.1	—	0.02	0.2	—	0.04	0.5	nA
Collector Leakage at 100°C	I_{CBO}	At Max Rated Voltage	—	1.0	10	—	2.0	20	—	4.0	25	nA
Emitter Leakage at 100°C	I_{EBO}	At Max Rated Voltage	—	1.0	10	—	2.0	15	—	4.0	20	nA
Offset Voltage	V_O	$I_B = 200\mu\text{A}$ $I_E = 0$	—	0.2	0.3	—	0.35	0.5	—	0.5	0.8	mV
Offset Voltage	V_O	$I_B = 1\text{mA}$ $I_E = 0$	—	0.4	0.6	—	0.7	1.0	—	1.0	2.0	mV
Offset Voltage	V_O	$I_B = 2\text{mA}$ $I_E = 0$	—	0.7	1.0	—	0.8	1.6	—	1.3	2.5	mV
D C Common Emitter Forward Current Transfer Ratio	h_{FE}	$V_{CE} = -0.5\text{V}$ $I_C = 1\text{mA}$	100	250	—	70	150	—	50	100	—	
D C Common Collector Forward Current Transfer Ratio	h_{fc}	$V_{EC} = -0.5\text{V}$ $I_B = 200\mu\text{A}$	50	—	—	30	—	—	20	—	—	
High Frequency Current Gain	h_{fe}	$f = 1\text{MHz}$ $V_{CE} = -6\text{V}$ $I_{CE} = 1\text{mA}$	15	—	—	10	—	—	5	—	—	
Inverted Dynamic Saturation Resistance	$r_{EC(sat)}$	$I_e = 0.1\text{mA}$ $I_B = 1\text{mA}$ $f = 1\text{kHz}$	—	—	4	—	—	6	—	—	8	Ohms
Collector To Base Capacitance	C_{ob}	$V_{CB} = -6\text{V}$ $I_C = 1\text{mA}$	—	—	10	—	—	10	—	—	10	pfd
Emitter To Base Capacitance	C_{eb}	$V_{EB} = -6\text{V}$ $I_E = 0$	—	—	6	—	—	6	—	—	6	pfd



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