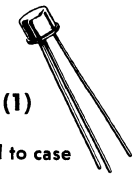
2N460, 2N461 (GERMANIUM)



CASE 31(1)
(TO-5)
Base connected to case

PNP germanium transistor for general purpose industrial applications.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Base Voltage	V_{CB}	45	Volts
Collector-Emitter Voltage (R_{BE} = 1 K)	V_{CER}	35	Volts
Emitter-Base Voltage	V_{EB}	10	Volts
Collector Current	I_C	400	mA
Collector Dissipation at 25° C Case Temperature Derate above 25° C at 25° C Ambient Temperature Derate above 25° C	P_D	 500 6.7 225 3.0	 mW mW/° C mW mW/° C
Junction Temperature Range	T_J	-65 to +100	° C

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristics		Symbol	Min	Typical	Max	Unit
Collector-Base Cutoff Current (V_{CB} = 45 Vdc)		I_{CBO}	---	---	15	μAdc
Emitter-Base Cutoff Current (V_{EB} = -10 Vdc)		I_{EBO}	---	---	10	μAdc
Collector-Emitter Voltage (I_C = 1 mAdc, R_{BE} = 1 K)		BV_{CER}	35	---	---	Vdc
Small-Signal Current Gain (V_{CB} = -6 Vdc, I_E = 1 mAdc, f = 1 kHz)	2N460 2N461	h_{fb}	0.94 0.955	0.96 0.968	0.972 0.988	---
Small-Signal Current Gain (V_{CB} = -6 Vdc, I_E = 1 mAdc, f = 1 kHz)	2N460 2N461	h_{fe}	17 31	---	36 200	---
Reverse Voltage Ratio (V_{CB} = -6 Vdc, I_E = 1 mAdc, f = 1 kHz)	2N460 2N461	h_{rb}	--- ---	2.0 3.0	15 15	$X10^{-4}$
Input Resistance (V_{CB} - -6 Vdc, I_E = 1 mAdc, f = 1 kHz)	2N460 2N461	h_{ib}	25 25	30 ---	40 40	Ohms
Output Admittance (V_{CB} = -6 Vdc, I_E = 1 mAdc, f = 1 kHz)	2N460 2N461	h_{ob}	--- ---	0.8 0.5	1.5 1.5	μmho
Frequency Cutoff (V_{CE} = -5 Vdc, I_E = 1 mAdc)	2N460 2N461	$f_{\alpha b}$	--- ---	1.2 4.0	--- ---	MHz
Output Capacitance (V_{CB} = -10 Vdc, I_E = 1 mAdc, f = 1 MHz)		C_{ob}	---	20	---	pF
Noise Figure (V_{CE} = -4.5 Vdc, I_E = 0.5 mAdc, R_g = 1 K, f = 1 kHz)	2N460 2N461	NF	--- ---	5.0 4.0	--- ---	dB