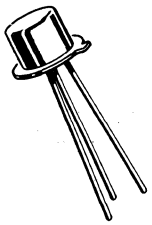
2N985 (GERMANIUM)



PNP germanium epitaxial mesa transistor for high-speed switching applications.

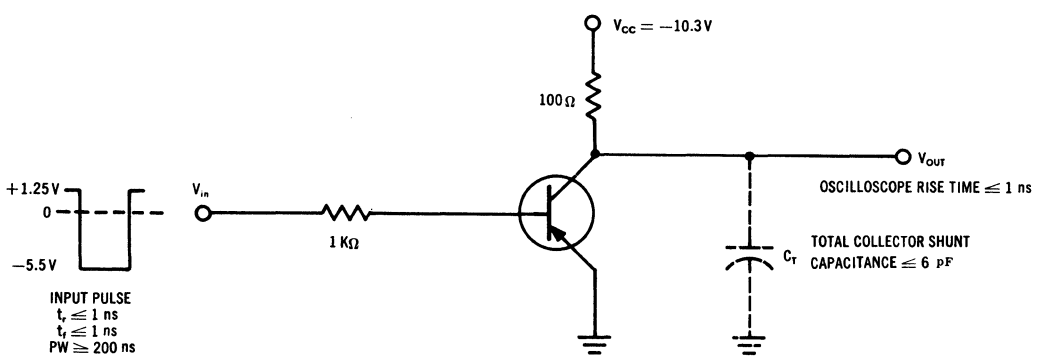
CASE 22
(TO-18)

Collector connected to case

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Base Voltage	V_{CB}	15	Vdc
Collector-Emitter Voltage	V_{CEO}	7.0	Vdc
Emitter-Base Voltage	V_{EB}	3.0	Vdc
Collector Current	I_C	200	mAdc
Junction Temperature	T_J	100	°C
Storage Temperature	T_{stg}	-65 to +100	°C
Device Dissipation @ T_C = 25°C Derate above 25°C	P_D	300 4.0	mW mW/°C
Device Dissipation @ T_A = 25°C Derate above 25°C	P_D	150 2.0	mW mW/°C

SWITCHING TIME TEST CIRCUIT



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

Characteristic	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage (I_C = 100 μAdc, I_E = 0)	BV_{CBO}	15	—	Vdc
Collector-Emitter Breakdown Voltage (I_C = 5 mAdc, I_B = 0)	BV_{CEO}	7.0	—	Vdc
Collector-Emitter Breakdown Voltage (I_C = 100 μAdc, R_{BE} = 0)	BV_{CES}	15	—	Vdc
Emitter-Base Breakdown Voltage (I_E = 100 μAdc, I_C = 0)	BV_{EBO}	3.0	—	Vdc
Collector Cutoff Current (V_{CB} = 5 Vdc, I_E = 0)	I_{CBO}	—	3.0	μAdc
Emitter Cutoff Current (V_{EB} = 3 Vdc, I_C = 0)	I_{EBO}	—	100	μAdc
DC Current Gain (I_C = 10 mAdc, V_{CE} = 0.25 Vdc) (I_C = 100 mAdc, V_{CE} = 0.5 Vdc)	h_{FE}	40 60	— —	—
Collector Saturation Voltage (I_C = 10 mAdc, I_B = 0.5 mAdc) (I_C = 100 mAdc, I_B = 5 mAdc)	$V_{CE(sat)}$	— —	0.15 0.30	Vdc
Base-Emitter Voltage (I_C = 10 mAdc, I_B = 0.5 mAdc) (I_C = 100 mAdc, I_B = 5 mAdc)	V_{BE}	0.28 0.40	0.40 0.60	Vdc
Small Signal Current Gain (V_{CE} = 2 Vdc, I_C = 30 mAdc, f = 100 MHz)	$\|h_{fe}\|$	3.0	—	—
Collector Output Capacitance (V_{CB} = 5 Vdc, I_E = 0, f = 1 MHz)	C_{ob}	—	6.0	pF
Turn-on Time (I_C = 10 mAdc, I_{B1} = 5 mAdc, $V_{BE(0)}$ = 1.25 Vdc)	t_{on}	—	35	ns
Turn-off Time (I_C = 10 mAdc, I_{B1} = 5 mAdc, I_{B2} = 1.25 mA)	t_{off}	—	80	ns

2N995 (SILICON)

For Specifications, See 2N869 Data.