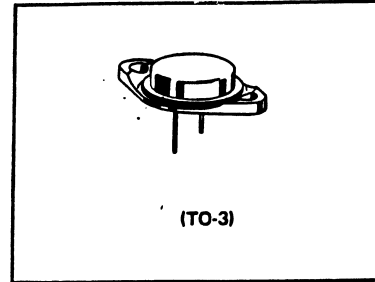


2N2137 (GERMANIUM)

PNP germanium industrial power transistors for driver applications in high reliability equipment.

MAXIMUM RATINGS

Rating	Symbol		Unit
Collector-Base Voltage	V_{CB}	30	Vdc
Collector-Emitter Voltage	V_{CES}	30	Vdc
Collector-Emitter Voltage	V_{CEO}	20	Vdc
Emitter-Base Voltage	V_{EB}	15	Vdc
Total Device Dissipation @ $T_C = 25^\circ C$ Derate above $25^\circ C$	P_D	70 0.833	Watts W/ $^\circ C$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +110 $^\circ C$	



ELECTRICAL CHARACTERISTICS

*Characteristics apply also to corresponding, non-A type numbers.

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage** ($I_C = 500$ mAdc, $I_B = 0$)	BV_{CEO}^{**}	20	-	-	Vdc
Collector-Emitter Breakdown Voltage** ($I_C = 300$ mAdc, $V_{RE} = 0$)	BV_{CES}^{**}	30	-	-	Vdc
Floating Potential ($V_{CB} = 30$ Vdc, $I_E = 0$)	V_{EBF}	-	-	1.0	Vdc
Collector-Base Cutoff Current ($V_{CB} = 2.0$ Vdc, $I_E = 0$) ($V_{CB} = V_{CB(max)}$, $I_C = 0$, $T_C = +71^\circ C$)	I_{CBO}	-	0.018 0.75	0.05 5.0	mAdc
Collector-Base Cutoff Current† ($V_{CB} = V_{CB(max)}$, $I_E = 0$)	I_{CBO1}	-	0.1	2.0	mAdc
Emitter-Base Cutoff Current ($V_{BE} = V_{BE(max)}$, $I_C = 0$) ($V_{BE} = V_{BE(max)}$, $I_C = 0$, $T_C = +71^\circ C$)	I_{EBO}	-	0.08 0.5	2.0 5.0	mAdc

ON CHARACTERISTICS

DC Current Gain ($I_C = 0.5$ Adc, $V_{CE} = 2.0$ Vdc)†	h_{FE1}	30	45	60	-
($I_C = 2.0$ Adc, $V_{CE} = 2.0$ Vdc)	h_{FE}	15	22	-	-
Collector-Emitter Saturation Voltage ($I_C = 2.0$ Adc, $I_B = 200$ mAdc)	$V_{CE(sat)}$	-	0.12	0.5	Vdc
Base-Emitter Saturation Voltage ($I_C = 2.0$ Adc, $I_B = 200$ mAdc)	$V_{BE(sat)}$	-	0.75	1.2	Vdc

DYNAMIC CHARACTERISTICS

Common Emitter Cutoff Frequency ($I_C = 2.0$ Adc, $V_{CE} = 6.0$ Vdc)	$f_{\alpha e}$	12	20	-	kHz
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**Sweep method: 1/2 cycle sine wave, 60 Hz.

