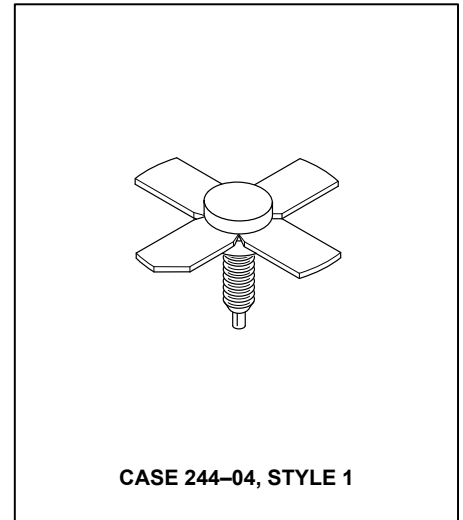


... designed primarily for wideband large-signal driver and predriver amplifier stages in the 200–500 MHz frequency range.

- ⓐ Guaranteed Performance at 400 MHz, 28 V
 - Output Power = 20 Watts
 - Power Gain = 10 dB Min
 - Efficiency = 50% Min
- ⓐ 100% Tested for Load Mismatch at all Phase Angles with 30:1 VSWR
- ⓐ Gold Metallization System for High Reliability
- ⓐ Computer-Controlled Wirebonding Gives Consistent Input Impedance

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector–Emitter Voltage	V_{CEO}	33	Vdc
Collector–Base Voltage	V_{CBO}	60	Vdc
Emitter–Base Voltage	V_{EBO}	4.0	Vdc
Collector Current — Continuous — Peak	I_C	2.2 3.0	Adc
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ (1) Derate above 25°C	P_D	55 310	Watts mW/°C
Storage Temperature Range	T_{stg}	–65 to +150	°C



THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.2	°C/W

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Collector–Emitter Breakdown Voltage ($I_C = 20 \text{ mAdc}$, $I_B = 0$)	$V_{(BR)CEO}$	33	—	—	Vdc
Collector–Emitter Breakdown Voltage ($I_C = 20 \text{ mAdc}$, $V_{BE} = 0$)	$V_{(BR)CES}$	60	—	—	Vdc
Collector–Base Breakdown Voltage ($I_C = 20 \text{ mAdc}$, $I_E = 0$)	$V_{(BR)CBO}$	60	—	—	Vdc
Emitter–Base Breakdown Voltage ($I_E = 2.0 \text{ mAdc}$, $I_C = 0$)	$V_{(BR)EBO}$	4.0	—	—	Vdc
Collector Cutoff Current ($V_{CB} = 30 \text{ Vdc}$, $I_E = 0$)	I_{CBO}	—	—	2.0	mAdc

ON CHARACTERISTICS

DC Current Gain ($I_C = 1.0 \text{ Adc}$, $V_{CE} = 5.0 \text{ Vdc}$)	h_{FE}	20	—	80	—
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DYNAMIC CHARACTERISTICS

Output Capacitance ($V_{CB} = 28 \text{ Vdc}$, $I_E = 0$, $f = 1.0 \text{ MHz}$)	C_{ob}	—	20	24	pF
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FUNCTIONAL TESTS (Figure 1)

Common–Emitter Amplifier Power Gain ($V_{CC} = 28 \text{ Vdc}$, $P_{out} = 20 \text{ W}$, $f = 400 \text{ MHz}$)	G_{PE}	10	11	—	dB
Collector Efficiency ($V_{CC} = 28 \text{ Vdc}$, $P_{out} = 20 \text{ W}$, $f = 400 \text{ MHz}$)	η	50	60	—	%
Load Mismatch ($V_{CC} = 28 \text{ Vdc}$, $P_{out} = 20 \text{ W}$, $f = 400 \text{ MHz}$, $VSWR = 30:1$ all phase angles)	ψ	No Degradation in Output Power			

Note : Above parameters , ratings , limits and conditions are subject to change.