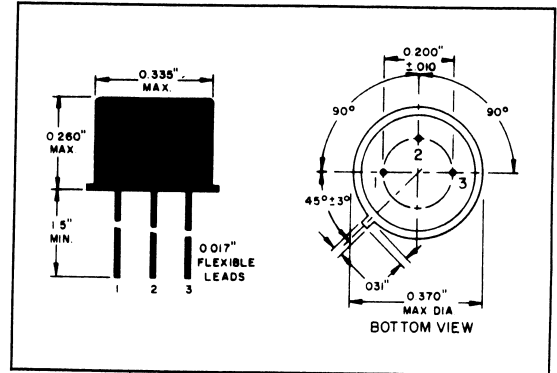


NPN SILICON PLANAR 2N497 2N498
TRANSISTOR 2N656 2N657

This family of Raytheon types are silicon planar NPN transistors designed for medium power, fast switching applications and are recommended for servo amplifier, medium power amplifiers and magnetic core drivers.



MECHANICAL DATA

CASE: JEDEC TO-5 TERMINAL CONNECTIONS:
Lead 1 Emitter Lead 2 Base
Lead 3 Collector (Electrically connected to case)

ELECTRICAL DATA

ABSOLUTE MAXIMUM RATINGS:

	2N497	2N498	2N656	2N657	UNITS
Collector to Base Breakdown Voltage V_{CB0}	60	100	60	100	volts
Collector to Emitter Breakdown Voltage V_{CEO}	60	100	60	100	volts
Emitter to Base Breakdown Voltage V_{EBO}	8.0	8.0	8.0	8.0	volts
Collector Dissipation at 25 ° C (Case Temperature)	4.0	4.0	4.0	4.0	watts
Collector Dissipation at 25 ° C (Ambient)	0.8	0.8	0.8	0.8	watts
Junction Temperature (Operating)					-65° C to +200° C
Storage Temperature					-65° C to +200° C

ELECTRICAL CHARACTERISTICS: @ 25° C (unless otherwise noted)

	SYM.	CONDITIONS	2N497, 2N498			2N656, 2N657			UNITS
			MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Collector Base Reverse Current	I_{CBO}	Maximum rated voltage	0.1	10		0.1	10	μA	
Emitter Base Reverse Current	I_{EBO}	Maximum rated voltage	.05	250		.05	250	μA	
Collector Cutoff Current	I_{CRO}	$V_{CB}=30 V$.002	10		.002	10	μA	
DC Current Gain	h_{FE}	$I_C=200 mA, V_C=10 V \blacktriangle$	12	20	36	30	60	90	
DC Input Resistance	h_{iE}	$I_B=8.0 mA, V_C=10 V \blacktriangle$	50	500		50	500	ohms	
Saturation Voltage	V_{CE}	$I_C=200 mA, I_B=40 mA \blacktriangle$	2.0	5.0		2.0	5.0	volts	
Output Capacitance	C_{ob}	$V_C=10 V, I_C=0$	14			14		$\mu\mu f$	
High Frequency Current Gain	h_{fe}	$V_C=10 V, I_C=50 mA, f=20 mc$	2.5			3.0			

\blacktriangle Measured with 300 μ Sec, 2% duty cycle pulse