

To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

Send any inquiries to <http://www.renesas.com/inquiry>.

Notice

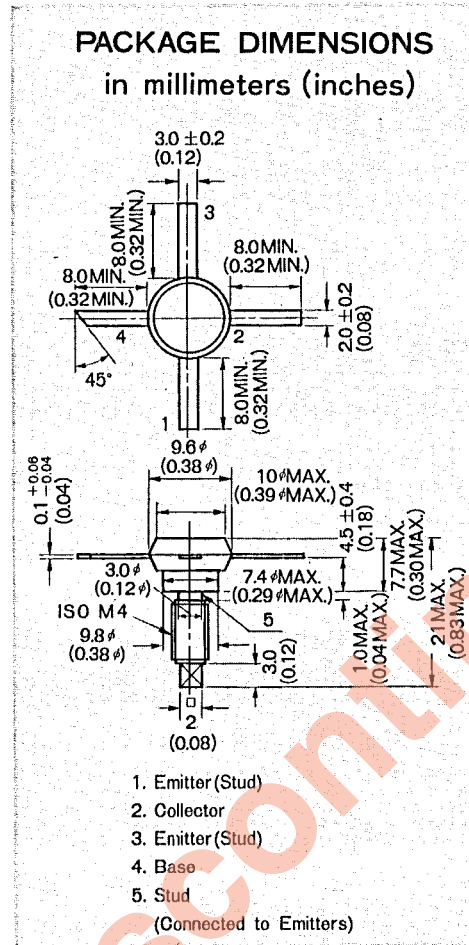
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SILICON POWER TRANSISTOR 2SC892

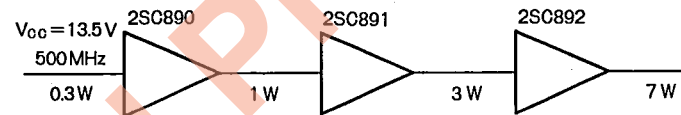
UHF POWER AMPLIFIER NPN SILICON EPITAXIAL TRANSISTOR INDUSTRIAL USE



FEATURES

- $P_o = 8.0W$ TYP. @ $V_{CC} = 13.5V$, $P_i = 3.0W$, $f = 500MHz$
- Suitable for Mobile Radio Equipment
Operating at 9 to 18 Volts.

Typical Lineup



ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ C$)

Collector to Base Voltage	V_{CB0}	40	V
Collector to Emitter Voltage	V_{CE0}	20	V
Emitter to Base Voltage	V_{EB0}	4.0	V
Collector Current (DC)	$I_C(DC)$	1.2	A
Collector Current (peak)	$I_C(peak)$	4.0	A
Total Power Dissipation	P_T	17.7	W
Thermal Resistance	$R_{th(j-c)}$	8.5	$^\circ C/W$
Junction Temperature	T_j	175	$^\circ C$
Storage Temperature	T_{stg}	-65 to +175	$^\circ C$

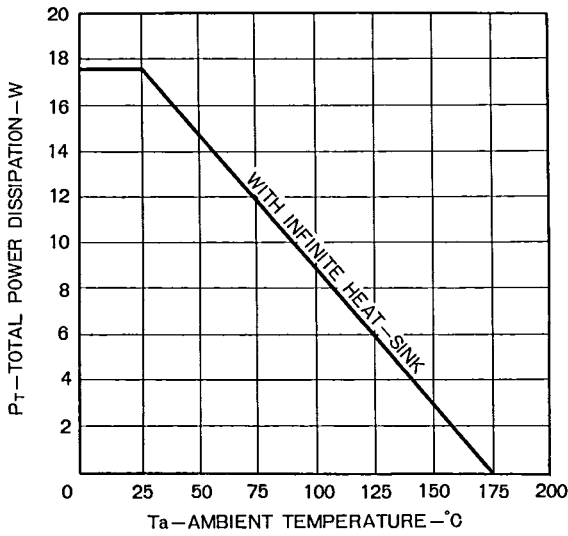
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CB0}			10	μA	$V_{CB} = 20V, I_E = 0$
DC Current Gain	h_{FE}	15				$V_{CE} = 10V, I_C = 1.0A^*$
Gain Bandwidth Product	f_T	400			MHz	$V_{CE} = 10V, I_C = 300mA$
Output Capacitance	C_{ob}			26	pF	$V_{CB} = 10V, I_E = 0, f = 1.0MHz$
Output Power	P_o	7.0	8.0		W	$V_{CC} = 13.5V, P_i = 3.0W, f = 500MHz$ See test circuit

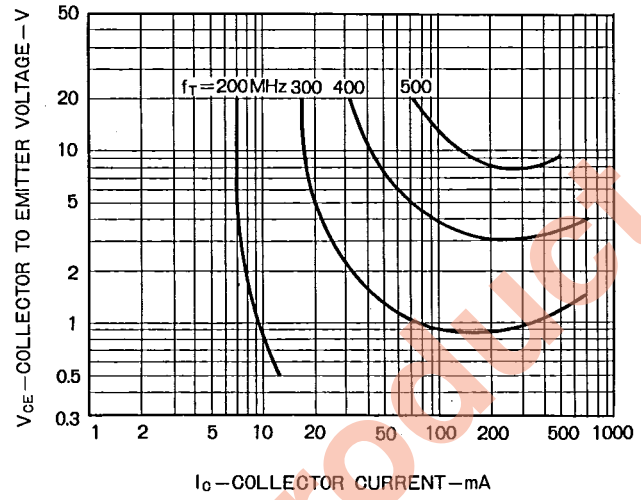
* Pulsed

TYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

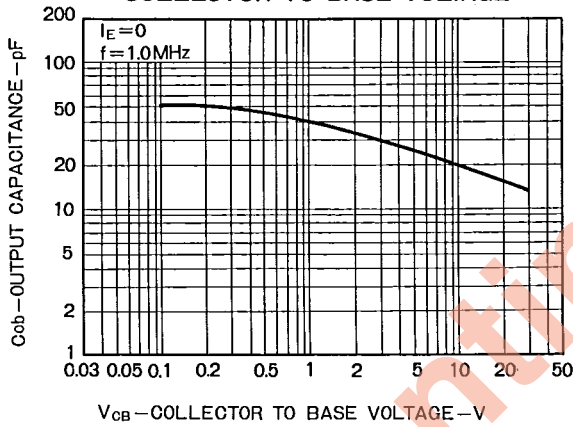
TOTAL POWER DISSIPATION VS. AMBIENT TEMPERATURES



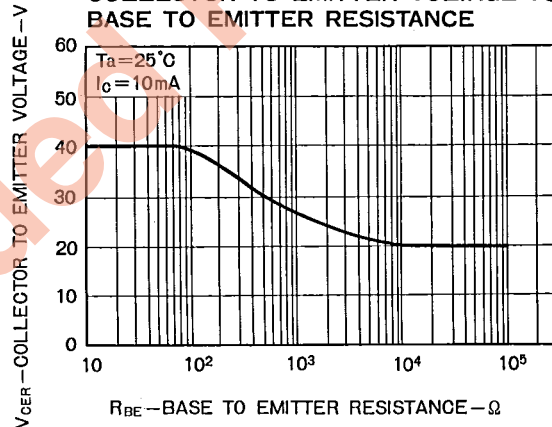
f_T MAP



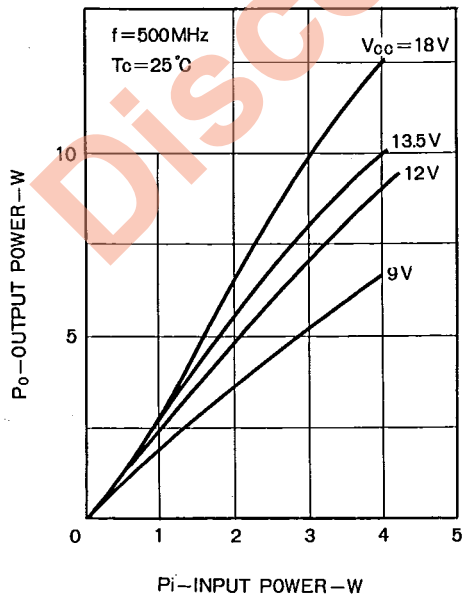
OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



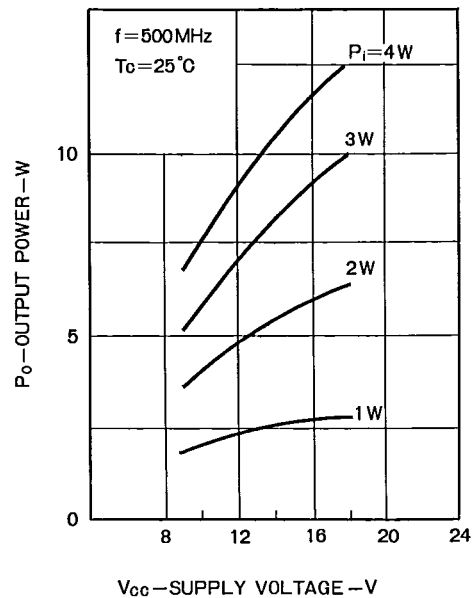
COLLECTOR TO EMITTER VOLTAGE VS. BASE TO EMITTER RESISTANCE



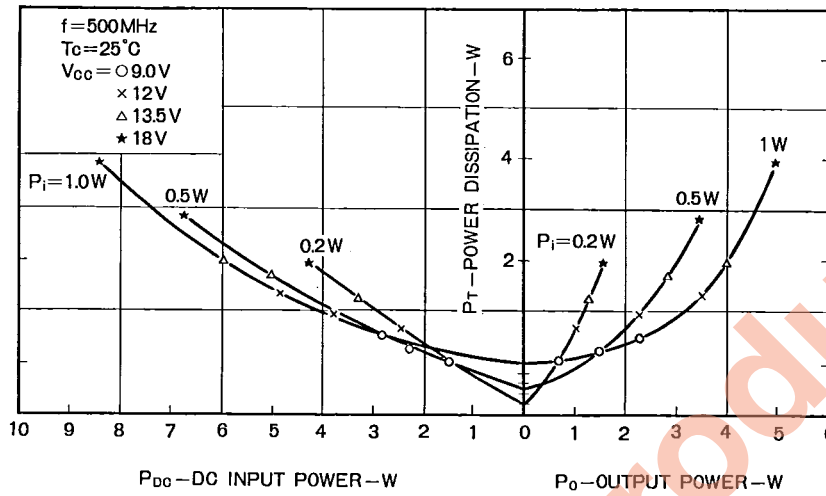
OUTPUT POWER VS. INPUT POWER



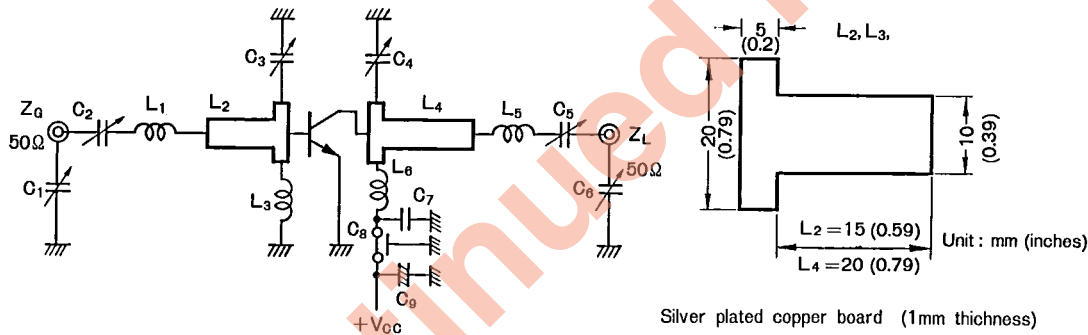
OUTPUT POWER VS. SUPPLY VOLTAGE



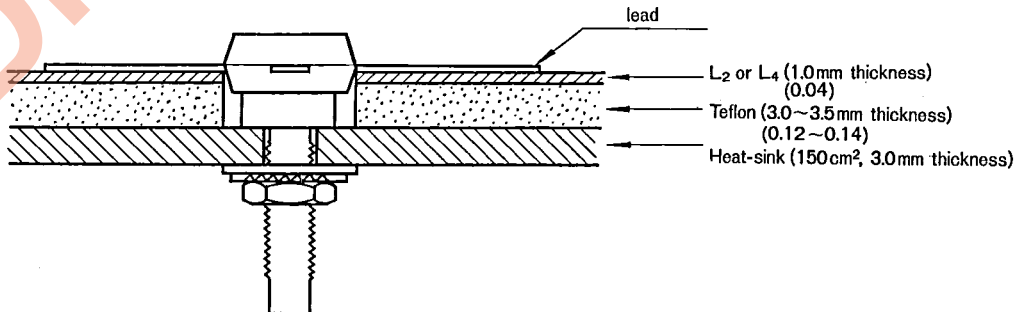
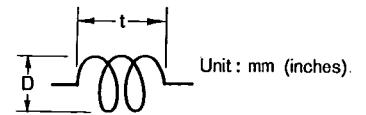
**POWER DISSIPATION VS.
DC INPUT POWER, OUTPUT POWER**



OUTPUT POWER TEST CIRCUIT



- f=500MHz
 C1 ~ C6: 25pF L1: 2T, D=6 (0.24), t=5.5 (0.22)
 C7: 0.2μF L3: 7T, D=6 (0.24), t=15 (0.59)
 C8: 1000pF L5: Length 12mm (0.47)
 C9: 3μF L6: 1T, D=6 (0.24), t=20 (0.79)
 L1, L3, L5, L6: 1.2# Silver plated copper wire.



Discontinued Product

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