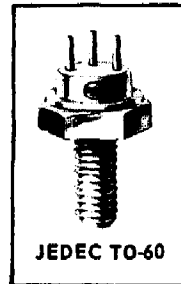


RF Power Transistors

2N4932
2N4933



For International VHF Mobile and Portable Communication,
 66 to 88 MHz

Operation From a Power Supply of -
 13.5 volts (2N4932)
 24 volts (2N4933)

Power Output (Min.) at 88 MHz
 12 watts (2N4932)
 20 watts (2N4933)

Load Protection
 High Voltage Ratings

RATINGS

Maximum Ratings, Absolute-Maximum Values:

	2N4932	2N4933
COLLECTOR-TO-BASE VOLTAGE V_{CBO}	50	70 V
COLLECTOR-TO-EMITTER VOLTAGE: With base open V_{CEO}	25	35 V
With $V_{BE} = -1.5V$ V_{CEV}	50	70 V
EMITTER-TO-BASE VOLTAGE V_{EBO}	4.0	V
COLLECTOR CURRENT: Peak	10	A
Continuous I_C	3.3	A
RF INPUT POWER P_{in} At 88 MHz	3.5	W
Below 88 MHz	See Fig.7	
TRANSISTOR DISSIPATION P_T At case temperatures up to 25° C	70	W
At case temperatures above 25° C	See Fig.1	
TEMPERATURE RANGE: Storage & Operating (Junction)	-65 to 200	°C
LEAD TEMPERATURE (During soldering); At distances $\geq 1/32$ in. from insulating wafer for 10 s max.	230	°C

DISSIPATION DERATING CURVE

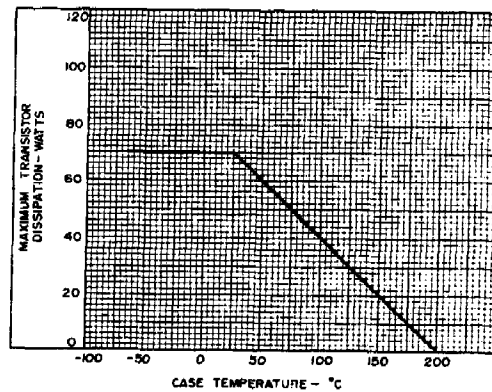


Fig.1

92L5-1314



NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

ELECTRICAL CHARACTERISTICS FOR 2N4932
Case Temperature = 25° C

Characteristic	Symbol	TEST CONDITIONS						Limits		Units
		DC Collector Volts		DC Base Volts	DC Current (Milliamperes)			Min.	Max.	
		V _{CB}	V _C E	V _{BE}	I _E	I _B	I _C			
Collector-Cutoff Current	I _{CEO}		15			0			1.0	mA
	I _{CBO}	40				0			10	mA
Collector-to-Emitter Breakdown Voltage	V _{CEV(sus)}			-1.5			200 ^a	50		V
	V _{CEO(sus)}					0	200 ^a	25		V
Emitter-to-Base Breakdown Voltage	BV _{EBO}				10		0	4		V
Collector-to-Base Capacitance	C _{ob}	15			0				120	pF
RF Power Output (See Fig.2)	P _{out}							12 ^c		W

ELECTRICAL CHARACTERISTICS FOR 2N4933
Case Temperature = 25° C

Characteristic	Symbol	TEST CONDITIONS						Limits		Units
		DC Collector Volts		DC Base Volts	DC Current (Milliamperes)			Min.	Max.	
		V _{CB}	V _C E	V _{BE}	I _E	I _B	I _C			
Collector-Cutoff Current	I _{CEO}		30			0			1.0	mA
	I _{CBO}	50				0			10	mA
Collector-to-Emitter Breakdown Voltage	V _{CEV(sus)}			-1.5			200 ^a	70		V
	V _{CEO(sus)}					0	200 ^a	35		V
Emitter-to-Base Breakdown Voltage	BV _{EBO}				10		0	4		V
Collector-to-Base Capacitance	C _{ob}	30			0				85	pF
RF Power Output (See Fig.3)	P _{out}							20 ^b		W

^aPulsed through an inductor (25mH), duty factor = 50%

^bFor P_{in} = 3.5 W, at 88 MHz; V_{cc} = 24V, minimum efficiency = 70%

^cFor P_{in} = 3.5 W, at 88 MHz; V_{cc} = 13.5V, minimum efficiency = 70%