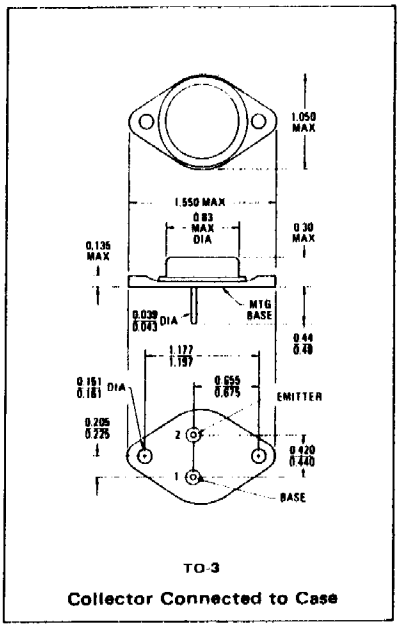
New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

2N4915 (SILICON)

NPN power transistors for use in power amplifier and switching circuits. Complement to PNP 2N4906.



TO-3
Collector Connected to Case

MAXIMUM RATINGS

Rating	Symbol	2N4915	Unit
Collector-Emitter Voltage	V_{CEO}	80	Vdc
Collector-Base Voltage	V_{CB}	80	Vdc
Emitter-Base Voltage	V_{EB}	5.0	Vdc
Collector Current — Continuous	I_C	5.0	Adc
Base Current - Continuous	I_B	1.0	Adc
Total Device Dissipation @ T_C = 25°C Derate above 25°C	P_D	87.5 0.5	Watts W/°C
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	θ_{JC}	2.0	°C/W

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Sustaining Voltage [1] (I_C = 0.2 Adc, I_B = 0)	$BV_{CEO(sus)}$	80	-	Vdc
Collector Cutoff Current (V_{CE} = Rated V_{CEO}, I_B = 0)	I_{CEO}	-	1.0	mAdc
Collector Cutoff Current (V_{CE} = Rated V_{CEO}, $V_{EB(off)}$ = 1.5 Vdc) (V_{CE} = Rated V_{CEO}, $V_{EB(off)}$ = 1.5 Vdc, T_C = 150°C	I_{CEX}	- -	1.0 2.0	mAdc
Collector Cutoff Current (V_{CB} = Rated V_{CB}, I_E = 0)	I_{CBO}	-	1.0	mAdc
Emitter Cutoff Current (V_{EB} = 5.0 Vdc, I_C = 0)	I_{EBO}	-	1.0	mAdc
ON CHARACTERISTICS [1]				
DC Current Gain (I_C = 2.5 Adc, V_{CE} = 2.0 Vdc) (I_C = 5.0 Adc, V_{CE} = 2.0 Vdc)	h_{FE}	25 7.0	100 -	-
Collector-Emitter Saturation Voltage (I_C = 2.5 Adc, I_B = 250 mAdc) (I_C = 5.0 Adc, I_B = 1.0 Adc)	$V_{CE(sat)}$	- -	1.0 1.5	Vdc
Base-Emitter On Voltage (I_C = 2.5 Adc, V_{CE} = 2.0 Vdc)	$V_{BE(on)}$	-	1.4	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain—Bandwidth Product (I_C = 1.0 Adc, V_{CE} = 10 Vdc, f = 1.0 MHz)	f_T	4.0	-	MHz
Small-Signal Current Gain (I_C = 500 mAdc, V_{CE} = 10 Vdc, f = 1.0 kHz)	h_{fe}	20	-	-

[1] Pulse Test, PW = 300 μs, Duty Cycle = 2.0%