Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

RoHS
Available on commercial versions

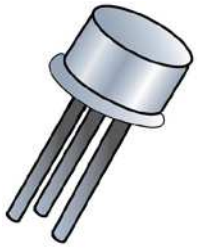
NPN Silicon Medium Power Transistor

Qualified per MIL-PRF-19500/180

Qualified Levels:
JAN and JANTX

DESCRIPTION

This family of high-frequency, epitaxial planar transistors feature low saturation voltage.



TO-8 Package

Important: For the latest information, visit our website http://www.microsemi.com.

FEATURES

- JEDEC registered 2N1483 through 2N1486 series.
- JAN and JANTX qualifications are available per MIL-PRF-19500/180.
- RoHS compliant versions available (commercial grade only).

APPLICATIONS / BENEFITS

- General purpose transistors for medium power applications requiring high frequency switching and low package profile.
- Military and other high-reliability applications.

MAXIMUM RATINGS

Parameters / Test Conditions	Symbol	2N1483 2N1485	2N1484 2N1486	Unit
Collector-Emitter Voltage	V_{CEO}	40	55	V
Collector-Base Voltage	V_{CBO}	60	100	V
Emitter-Base Voltage	V_{EBO}	12		V
Collector Current	I_C	3.0		A
Total Power Dissipation @ T_A = +25 °C (1) @ T_C = +25 °C (2)	PT	1.75 25		W
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200		°C

Notes: 1. Derate linearly 0.010 mW/°C for T_A > +25 °C.
2. Derate linearly 0.143 mW/°C for T_C > +25 °C.

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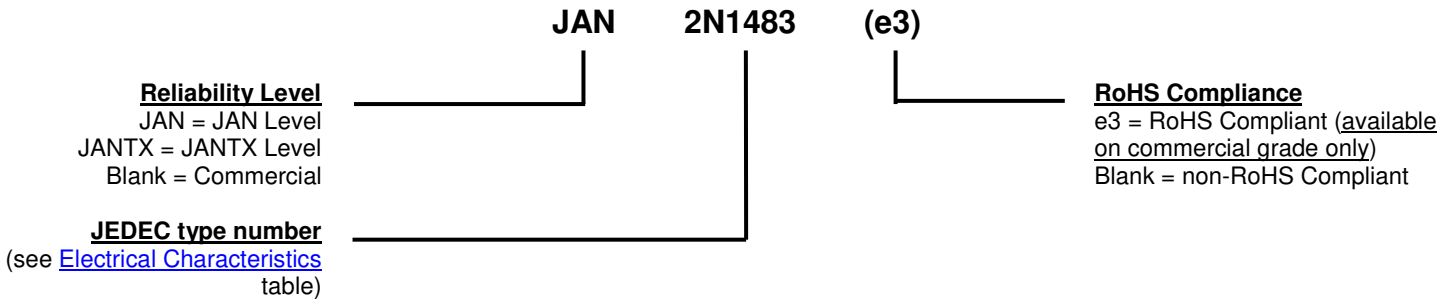
Website:
www.microsemi.com

MECHANICAL and PACKAGING

- CASE: Hermetically sealed, kovar base, nickel cap
- TERMINALS: Alloy 52 with nickel plating and hot solder dip (Sn63/Pb37) or matte-tin plating for RoHS compliance (available on commercial grade only).
- MARKING: Part number, date code, manufacturer's ID
- POLARITY: See Package Dimensions on last page.

PART NOMENCLATURE



SYMBOLS & DEFINITIONS

Symbol	Definition
C_{obo}	Common-base open-circuit output capacitance.
I_{CEO}	Collector cutoff current, base open.
I_{CEX}	Collector cutoff current, circuit between base and emitter.
I_{EBO}	Emitter cutoff current, collector open.
h_{FE}	Common-emitter static forward current transfer ratio.
V_{CEO}	Collector-emitter voltage, base open.
V_{CBO}	Collector-emitter voltage, emitter open.
V_{EBO}	Emitter-base voltage, collector open.

ELECTRICAL CHARACTERISTICS @ T_A = +25 °C, unless otherwise noted

OFF CHARACTERISTICS

Parameters / Test Conditions		Symbol	Min.	Max.	Unit
Collector-Emitter Breakdown Current I_C = 100 mA	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CEO}$	40 55		V
Collector-Emitter Cutoff Current V_{BE} = 1.5 V, I_C = 0.25 mA	2N1483, 2N1485 2N1484, 2N1486	I_{CEX}	60 100		µA
Collector-Base Cutoff Current V_{CB} = 30 V V_{CB} = 50 V	2N1483, 2N1485 2N1484, 2N1486	I_{CEO}		15.0 15.0	µA
Emitter-Base Cutoff Current V_{EB} = 12.0 V		I_{EBO}		15	µA

ON CHARACTERISTICS (1)

Parameters / Test Conditions		Symbol	Min.	Max.	Unit
Forward-Current Transfer Ratio I_C = 750 mA, V_{CE} = 4.0 V	2N1483, 2N1484 2N1485, 2N1486	h_{FE}	20 35	60 100	
Collector-Emitter Saturation Voltage I_C = 750 A, I_B = 75 mA I_C = 750 A, I_B = 40 mA	2N1483, 2N1484 2N1485, 2N1486	$V_{CE(sat)}$		1.20 0.75	V
Base-Emitter Voltage I_C = 750 mA, V_{CE} = 4.0 V		V_{BE}		2.0	V

DYNAMIC CHARACTERISTICS

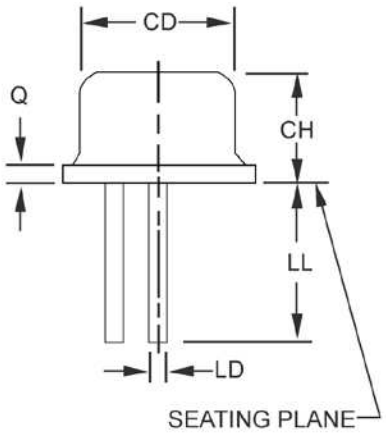
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Forward Current Transfer Ratio I_C = 5.0 mA, V_{CB} = 28 V	f_{htb}	600		kHz
Output Capacitance V_{CB} = 10 V, I_E = 0, 100 kHz ≤ f ≤ 1.0 MHz	C_{obo}		400	pF

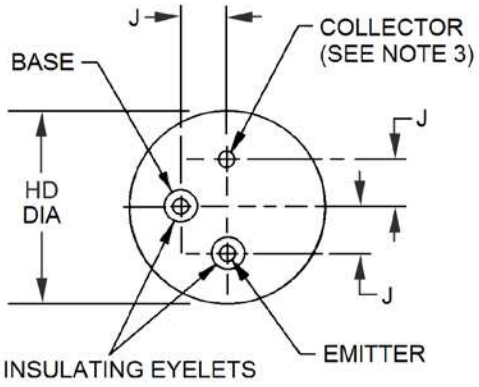
SWITCHING CHARACTERISTICS

Parameters / Test Conditions (for all symbols)		Symbol	Min.	Max.	Unit
Turn-On Time	V_{CC} = 12 V, R_C = 15.9 Ω, I_{BO} = I_{B2} = 35 mA, R_{B1} = 65 mA	t_{on} + t_{off}		25	µs

NOTES: (1) Pulse Test: Pulse Width = 300 µs, Duty Cycle ≤ 2.0%.

PACKAGE DIMENSIONS





Symbol	Dimensions				Note
	Inch		Millimeters		
	Min	Max	Min	Max	
CD	0.444	0.524	11.28	13.31	
CH	0.270	0.330	6.86	8.38	
HD	0.550	0.650	13.97	16.51	
J	0.136	0.146	3.45	3.71	
LD	0.027	0.033	0.69	0.84	3, 5
LL	0.360	0.440	9.14	11.18	5
Q	-	0.115	-	2.92	

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Measured in the zone beyond 0.050 (1.27 mm) from seating plane.
4. The collector shall be internally connected to the case.
5. All three leads.