

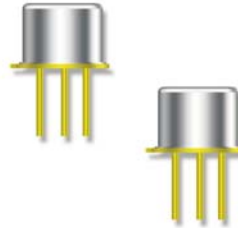
NPN Power Silicon Transistor

2N5339



Features

- Available in commercial, JAN, JANTX, JANTXV, JANS and JANSR 100K rads (Si) per MIL-PRF-19500/560
- TO-39 (TO-205AD) Package



Maximum Ratings

Ratings	Symbol	Value	Units
Collector - Emitter Voltage	V_{CEO}	100	Vdc
Collector - Base Voltage	V_{CBO}	100	Vdc
Emitter - Base Voltage	V_{EBO}	6.0	Vdc
Base Current	I_B	1.0	Adc
Collector Current	I_C	5.0	Adc
Total Power Dissipation @ $T_A = 25\text{ }^\circ\text{C}$ @ $T_C = 25\text{ }^\circ\text{C}$	P_T	1.0 17.5	W
Operating & Storage Temperature Range	T_{op}, T_{stg}	-65 to +200	$^\circ\text{C}$
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	10	$^\circ\text{C/W}$

Electrical Characteristics

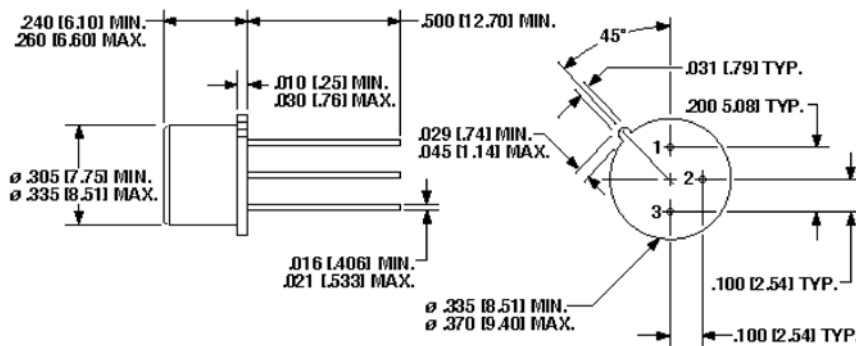
OFF Characteristics	Symbol	Mimimum	Maximum	Units
Collector - Emitter Breakdown Voltage $I_C = 50\text{ mA}$	$V_{(BR)CEO}$	100	---	Vdc
Collector - Emitter Cutoff Current $V_{CE} = 100\text{ Vdc}$	I_{CEO}	---	100	μAdc
Collector - Emitter Cutoff Current $V_{CE} = 90\text{ Vdc}, V_{BE} = 1.5\text{ Vdc}$	I_{CEX}	---	1.0	μAdc
Collector-Base Cutoff Current $V_{CB} = 100\text{ Vdc}$	I_{CBO}	---	1.0	μAdc
Emitter - Base Cutoff Current $V_{EB} = 6.0\text{ Vdc}$	I_{EBO}	---	100	μAdc
ON Characteristics				
Forward Current Transfer Ratio $I_C = 0.5\text{ Adc}, V_{CE} = 2.0\text{ Vdc}$ $I_C = 2.0\text{ Adc}, V_{CE} = 2.0\text{ Vdc}$ $I_C = 5.0\text{ Adc}, V_{CE} = 2.0\text{ Vdc}$	H_{FE}	60 60 40	--- 240 ---	
Collector - Emitter Saturation Voltage $I_C = 2.0\text{ Adc}, I_B = 0.2\text{ Adc}$ $I_C = 5.0\text{ Adc}, I_B = 0.5\text{ Adc}$	$V_{CE(sat)}$	--- ---	0.7 1.2	Vdc
Base - Emitter Saturation Voltage $I_C = 2.0\text{ Adc}, I_B = 0.2\text{ Adc}$ $I_C = 5.0\text{ Adc}, I_B = 0.5\text{ Adc}$	$V_{BE(sat)}$	---	1.2 1.8	Vdc



Electrical Characteristics -con't

DYNAMIC Characteristics	Symbol	Mimimum	Maximum	Units
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 0.5 \text{ Adc}, V_{CE} = 10.0 \text{ Vdc}, f = 10 \text{ MHz}$	$ h_{fe} $	3	15	
Output Capacitance $V_{CB} = 10.0 \text{ Vdc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}	---	250	pF
Input Capacitance $V_{BE} = 2.0 \text{ Vdc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{ibo}	---	1,000	pF
SAFE OPERATING AREA				
DC Tests:	$T_C = +25 \text{ }^\circ\text{C}, 1 \text{ Cycle}, t = 0.5 \text{ s}$			
Test 1:	$V_{CE} = 2.0 \text{ Vdc}, I_C = 5.0 \text{ Adc}$			
Test 2:	$V_{CE} = 5.0 \text{ Vdc}, I_C = 2.0 \text{ Adc}$			
Test 3:	$V_{CE} = 90.0 \text{ Vdc}, I_C = 55 \text{ mAdc}$			

Outline Drawing



NOTE: Dimensions in Inches [mm]

Aeroflex / Metelics, Inc.

975 Stewart Drive,
Sunnyvale, CA 94085
Tel: (408) 737-8181
Fax: (408) 733-7645

Sales: 888-641-SEMI (7364)

Hi-Rel Components

9 Hampshire Street,
Lawrence, MA 01840
Tel: (603) 641-3800
Fax: (978) 683-3264

www.aeroflex.com/metelics-hirelcomponents

54 Grenier Field Road,
Londonderry, NH 03053
Tel: (603) 641-3800
Fax: (603)-641-3500

ISO 9001: 2008 certified companies

www.aeroflex.com/metelics metelics-sales@aeroflex.com

Aeroflex / Metelics, Inc. reserves the right to make changes to any products and services herein at any time without notice. Consult Aeroflex or an authorized sales representative to verify that the information in this data sheet is current before using this product. Aeroflex does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by Aeroflex; nor does the purchase, lease, or use of a product or service from Aeroflex convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual rights of Aeroflex or of third parties.

Copyright 2011 Aeroflex / Metelics. All rights reserved.



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [aeroflex](#) manufacturer:

Other Similar products are found below :

[69A-30-11](#) [1444-2](#) [57-40-33](#) [980-2](#) [40-3-34](#) [M1406A](#) [3M-6](#) [3M-40](#) [4H-3](#) [ACT4404N-201](#) [1N4744A](#) [18A-05](#) [18A-04](#) [23A-03](#) [5085](#) [18A-06](#) [JANTX1N6642U](#) [18B10W-06](#) [1N5313-1JANTX](#) [18A-30](#) [PPT1250-400-50R0J](#) [JANS1N6638US](#) [JANTXV2N6301](#) [6AH-15](#) [JANTXV2N3715](#) [JANTX1N4150-1](#) [6AH-10](#) [18A-10](#) [6AH-30](#) [JANTX2N2222AUB](#) [40AH-03](#) [18AH-20](#) [JAN1N752AUR-1](#) [A3WH09-5R](#) [JANTX1N5524B-1](#) [PCA-3](#) [PCAF-10](#) [JANTXV1N6638U](#) [JANTXV1N827-1](#) [18AH-04](#) [18AH-08](#) [18AH-00](#) [PPA20-5](#) [JANTX2N3715](#) [JANTXV1N4106UR-1](#) [18AH-09](#) [PCAF-16](#) [PCAF-3](#) [40AH-10](#) [18AH-07](#)