



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.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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





PNP Darlington Power Silicon Transistor

2N6286 & 2N6287



Features

- Available in JANTX, and JANTXV per MIL-PRF-19500/505
- TO-3 (TO-204AA) Package



Maximum Ratings

Ratings	Symbol	2N6286	2N6287	Units
Collector - Emitter Voltage	V_{CEO}	-80	-100	Vdc
Collector - Base Voltage	V_{CBO}	-80	-100	Vdc
Emitter - Base Voltage	V_{EBO}	-7.0		Vdc
Base Current	I_B	-0.5		Adc
Collector Current	I_C	-20		Adc
Total Power Dissipation	P_T	@ $T_A = +25\text{ }^\circ\text{C}$ ⁽¹⁾	175	W
		@ $T_C = +100\text{ }^\circ\text{C}$	87.5	W
Operating & Storage Junction Temperature Range	T_{Op}, T_{stg}	-65 to +175		$^\circ\text{C}$

1) Derate linearly @ 1.17 mW / $^\circ\text{C}$ for $T_C > +25\text{ }^\circ\text{C}$

Thermal Characteristics

Characteristics	Symbol	Maximum	Units
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	0.857	$^\circ\text{C/W}$

Electrical Characteristics

OFF Characteristics	Symbol	Mimimum	Maximum	Units
Collector - Emitter Breakdown Voltage $I_C = -100\text{ mAdc}$	$V_{(BR)CEO}$	2N6286 2N6287	-80 -100	---
				Vdc
Collector - Emitter Cutoff Current $V_{CE} = -40\text{ Vdc}$ $V_{CE} = -50\text{ Vdc}$	I_{CEO}	2N6286 2N6287	---	-1.0 -1.0
				mAdc
Collector - Emitter Cutoff Current $V_{CE} = -80\text{ Vdc}, V_{BE} = 1.5\text{ Vdc}$ $V_{CE} = -100\text{ Vdc}, V_{BE} = 1.5\text{ Vdc}$	I_{CEX}	2N6286 2N6287	---	-0.5 -0.5
				mAdc
Emitter - Base Cutoff Current $V_{EB} = -7.0\text{ Vdc}$	I_{EBO}		---	-2.0
				mAdc

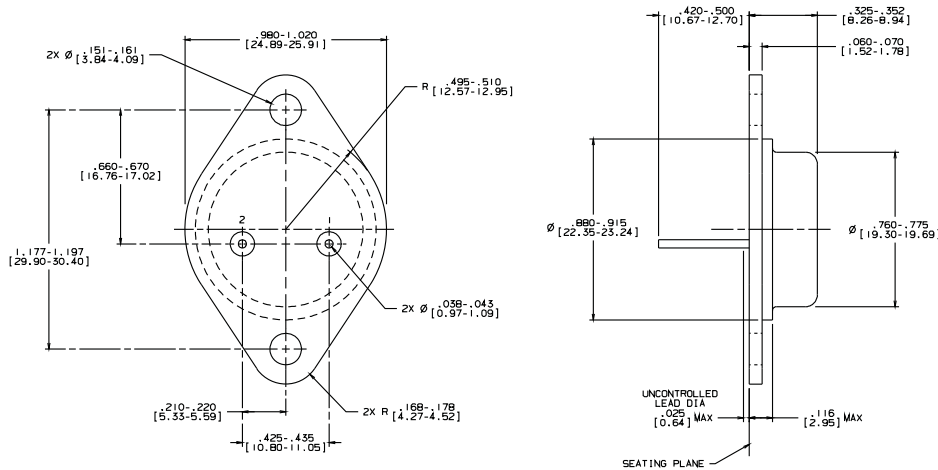


Electrical Characteristics -con't

ON Characteristics ⁽²⁾	Symbol	Minimum	Maximum	Units
Forward Current Transfer Ratio $I_C = -1.0 \text{ Adc}, V_{CE} = -3.0 \text{ Vdc}$ $I_C = -6.0 \text{ Adc}, V_{CE} = -3.0 \text{ Vdc}$ $I_C = -12 \text{ Adc}, V_{CE} = -3.0 \text{ Vdc}$	H_{FE}	1,000 1,000 150	18,000	
Collector - Emitter Saturation Voltage $I_C = -20 \text{ Adc}, I_B = -200 \text{ mAdc}$ $I_C = -10.0 \text{ Adc}, I_B = -40 \text{ mAdc}$	$V_{CE(sat)}$	--- ---	-3.0 -2.0	Vdc
Base - Emitter Saturation Voltage $I_C = -20 \text{ Adc}, I_B = -200 \text{ mAdc}$	$V_{BE(sat)}$	---	-4.0	Vdc
Base - Emitter Voltage $I_C = -10.0 \text{ Adc}, I_B = -3.0 \text{ Adc}$	$V_{BE(sat)}$	---	-2.8	Vdc
DYNAMIC Characteristics				
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = -10 \text{ Adc}, V_{CE} = -3.0 \text{ Vdc}, f = 1.0 \text{ MHz}$	$ h_{fe} $	8.0	80	
Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = -10 \text{ Adc}, V_{CE} = -3.0 \text{ Vdc}$	h_{fe}	300	---	
Output Capacitance $V_{CB} = -10 \text{ Vdc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}	---	400	pF
Switching Characteristic				
Turn-On Time $V_{CC} = -30 \text{ Vdc}, I_C = -10 \text{ Adc}, I_B = -40 \text{ mAdc}$	t_{on}	---	2.0	μs
Turn-Off Time $V_{CC} = -30 \text{ Vdc}, I_C = -10 \text{ Adc}, I_B = -40 \text{ mAdc}$	t_{off}	---	10	μs
SAFE OPERATING AREA				
DC Tests: $T_C = +25 \text{ }^\circ\text{C}, 1 \text{ Cycle}, t = 1.0 \text{ s}$ Test 1: $V_{CE} = -8.75 \text{ Vdc}, I_C = -20 \text{ Adc}$ All Types Test 2: $V_{CE} = -30.0 \text{ Vdc}, I_C = -5.8 \text{ Adc}$ All Types Test 3: $V_{CE} = -80.0 \text{ Vdc}, I_C = -100 \text{ mAdc}$ 2N6286 $V_{CE} = -100.0 \text{ Vdc}, I_C = -100 \text{ mAdc}$ 2N6287				

(2) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0 \%$.

Outline Drawing



- NOTES:
1. STANDARD HEADER TYPE SOLID BASE.
 2. STANDARD LEAD FINISH PER MIL-N-38510 TYPE X OR EQUIVALENT.
 3. LEAD NOT BENT GREATER THAN 15°.
 4. DIMENSIONS BASED ON JEDEC STANDARD TO-3 PUBLICATION 95, PA

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

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 2012 Aeroflex / Metelics. All rights reserved.

ISO 9001: 2008 certified companies



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