



Is Now Part of



ON Semiconductor®

To learn more about ON Semiconductor, please visit our website at
www.onsemi.com

Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

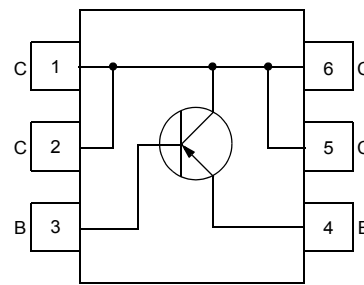
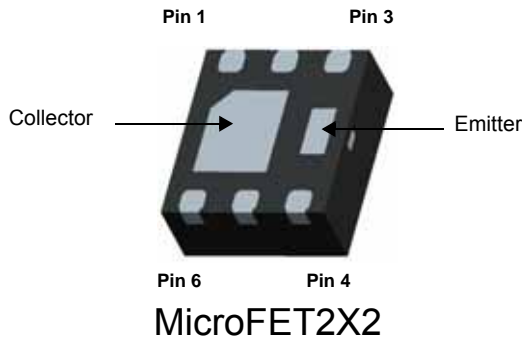
ON Semiconductor and the ON Semiconductor logo are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of ON Semiconductor's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using ON Semiconductor products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by ON Semiconductor. "Typical" parameters which may be provided in ON Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. ON Semiconductor does not convey any license under its patent rights nor the rights of others. ON Semiconductor products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use ON Semiconductor products for any such unintended or unauthorized application, Buyer shall indemnify and hold ON Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that ON Semiconductor was negligent regarding the design or manufacture of the part. ON Semiconductor is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.



FJMA790 PNP Epitaxial Silicon Transistor

High current surface mount PNP silicon switching transistor for load management in portable applications

- High Collector current
- Low Collector-Emitter Saturation Voltage
- RoHS Compliant



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units	
V_{CBO}	Collector-Base Voltage	-50	V	
V_{CEO}	Collector-Emitter Voltage	-35	V	
V_{EBO}	Emitter-Base Voltage	-5	V	
I_C	Collector Current (DC)	-2	A	
P_D	Power Dissipation	Note1)	1.56	W
		Note2)	0.8	W
T_J	Junction Temperature	150	$^\circ\text{C}$	
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$	

Thermal Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units	
$R\theta_{JA}$	Thermal Resistance, Junction to Ambient	Note1)	80	$^\circ\text{C/W}$
		Note2)	154	$^\circ\text{C/W}$

Note1): The device mounted on a 1inch² pad of 2 oz copper pad on a 1.5 × 1.5 in. board of FR-4 material.

Note2): The device mounted on a minimum pad of 2 oz copper pad on a 1.5 × 1.5 in. board of FR-4 material

Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
BV _{CBO}	Collector-Base Breakdown Voltage	I _C = -100μA, I _E = 0	-50			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = -10mA, I _B = 0	-35			V
BV _{EBO}	Emitter-Base Breakdown Voltage	I _C = -100μA, I _C = 0	-5			V
I _{CBO}	Collector Cut-off Current	V _{CB} = -35V, I _C = 0			-0.1	μA
I _{EBO}	Emitter Cut-off Current	V _{EB} = -4V, I _C = 0			-0.1	μA
h _{FE}	DC Current Gain	V _{CE} = -1.5V, I _C = -1A V _{CE} = -1.5V, I _C = -1.5A V _{CE} = -3V, I _C = -2A V _{CE} = -2V, I _C = -500mA	100 100 100 100		400	
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -500mA, I _B = -5mA I _C = -1A, I _B = -10mA I _C = -2A, I _B = -50mA			-250 -350 -450	mV mV mV
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -1A, I _B = -10mA			-0.9	V
V _{BE(on)}	Base-Emitter On Voltage	V _{CE} = -2V, I _C = -1A			-0.9	V

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
790	FJMA790	MLP 2x2 Single	7"	8mm	3,000 units

Typical Characteristics

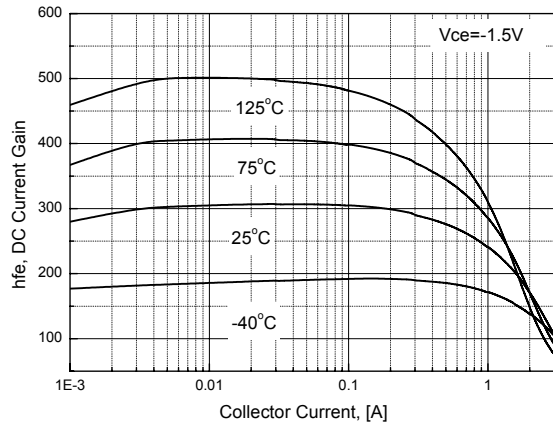


Figure 1. DC Current Gain, Vce=1.5V

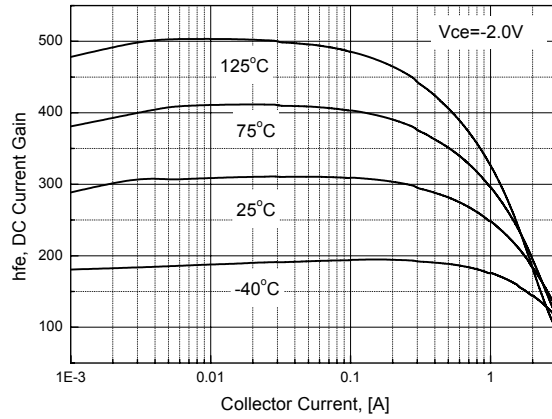


Figure 2. DC Current Gain, Vce=2V

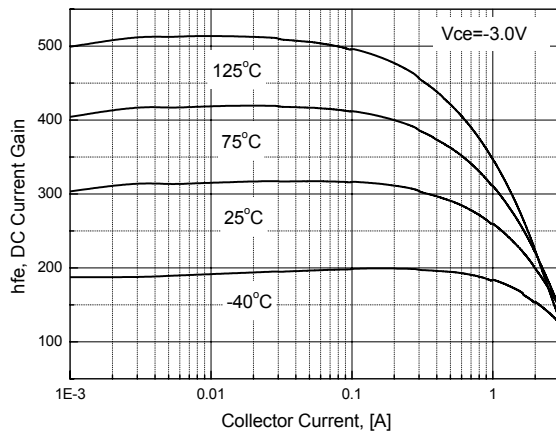


Figure 3. DC Current Gain, Vce=3V

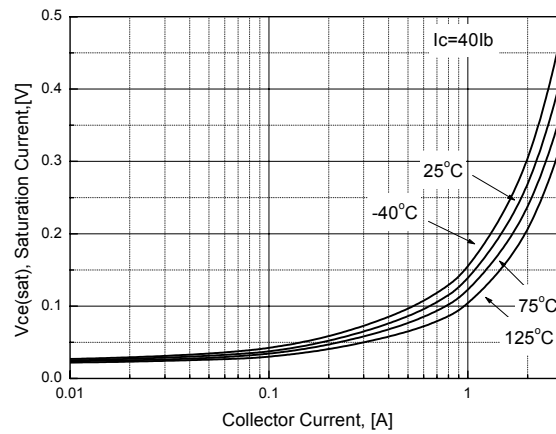


Figure 4. Collector-Emitter Saturation Voltage(1)

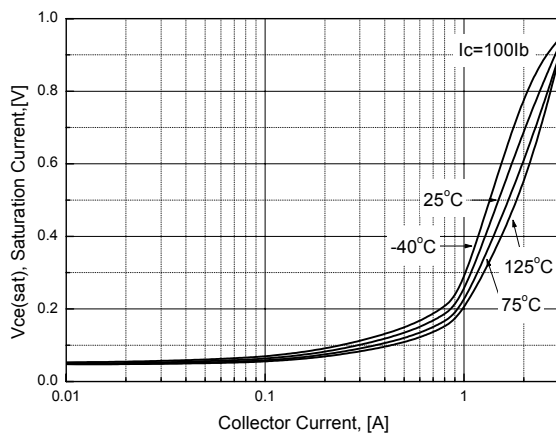


Figure 5. Collector-Emitter Saturation Voltage(2)

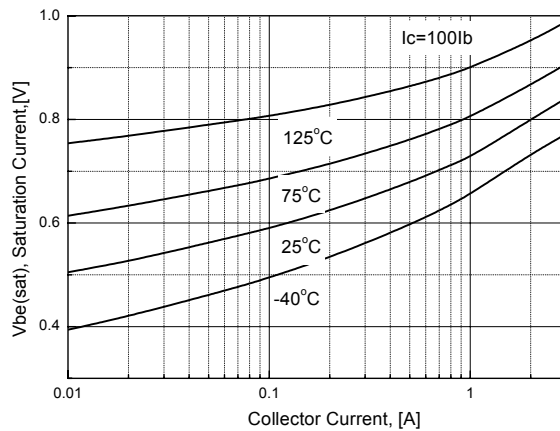


Figure 6. Base-Emitter Saturation Voltage

Typical Performance Characteristics (Continued)

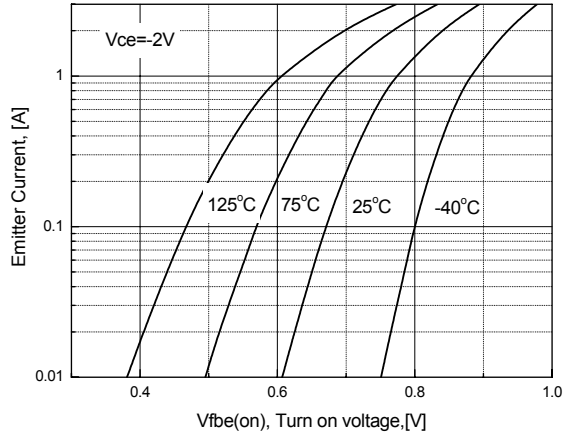


Figure 7. Base- Emitter Turn On Voltage

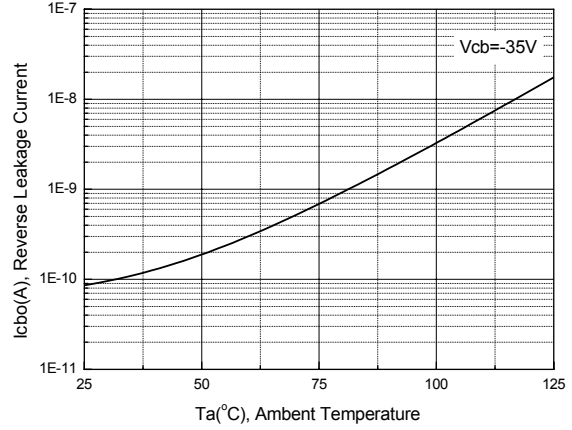


Figure 8. Collector-Base Leakage Current

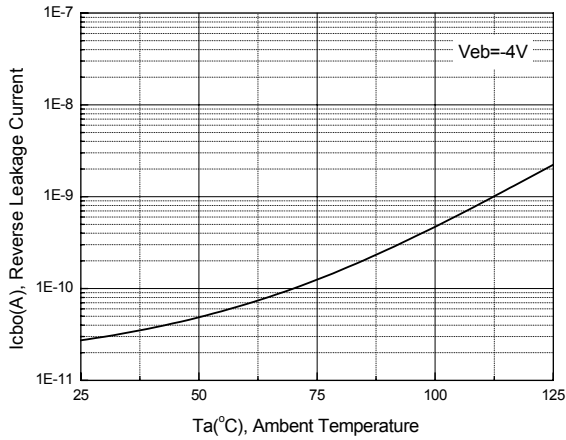


Figure 9. Base-Emitter Leakage Current

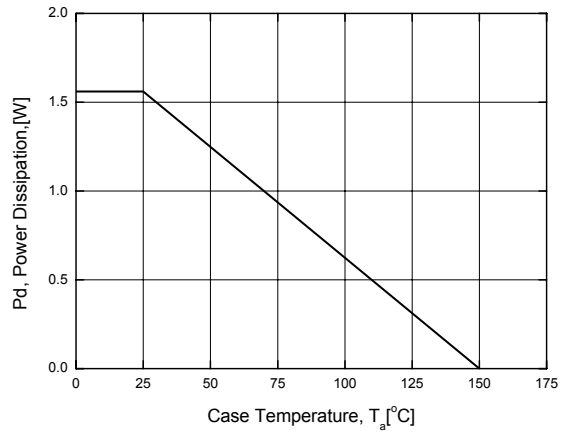


Figure 10. Power Derating

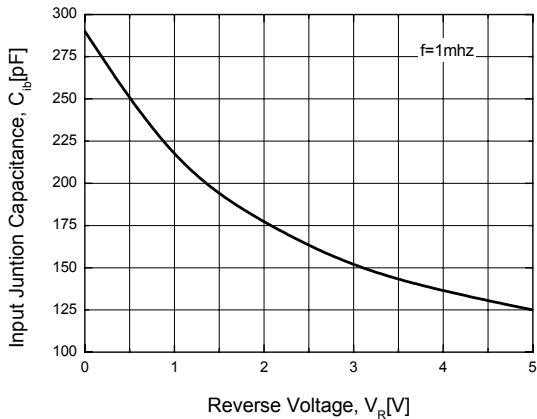


Figure 11. Input Capacitance

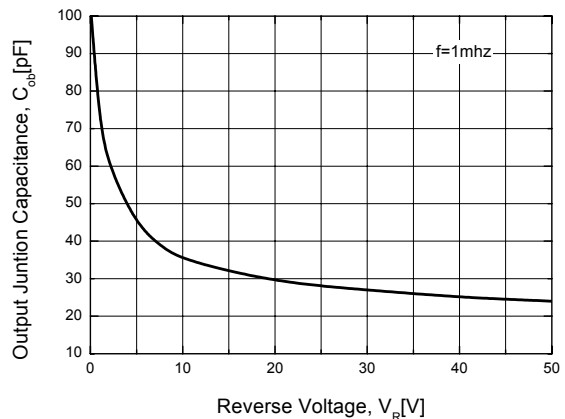
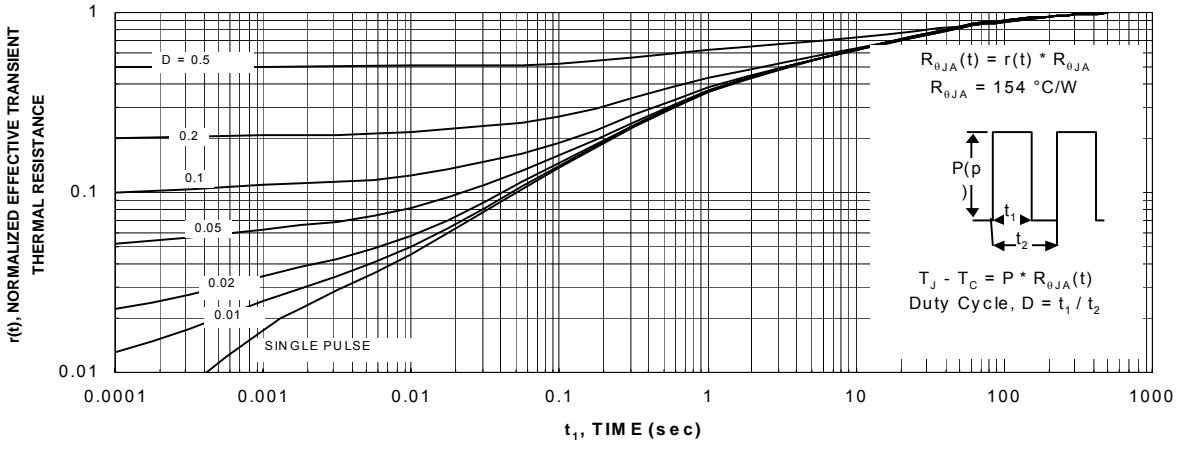
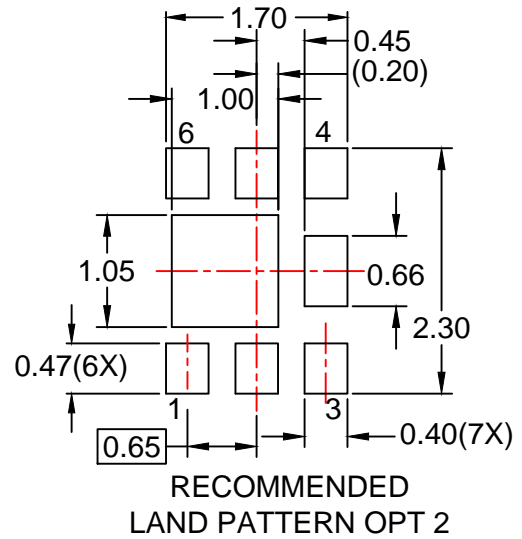
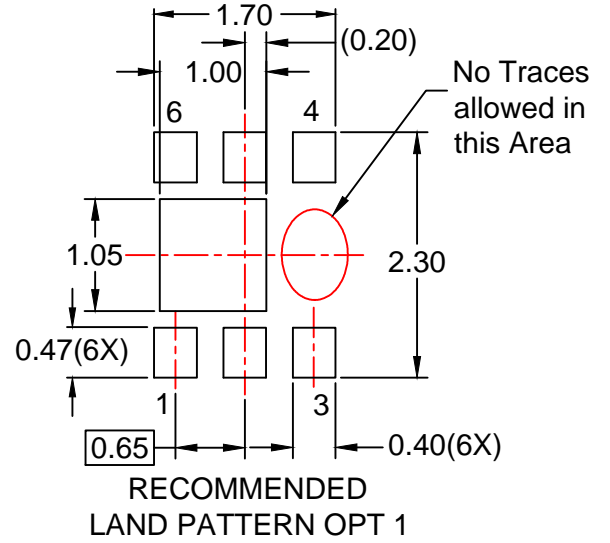
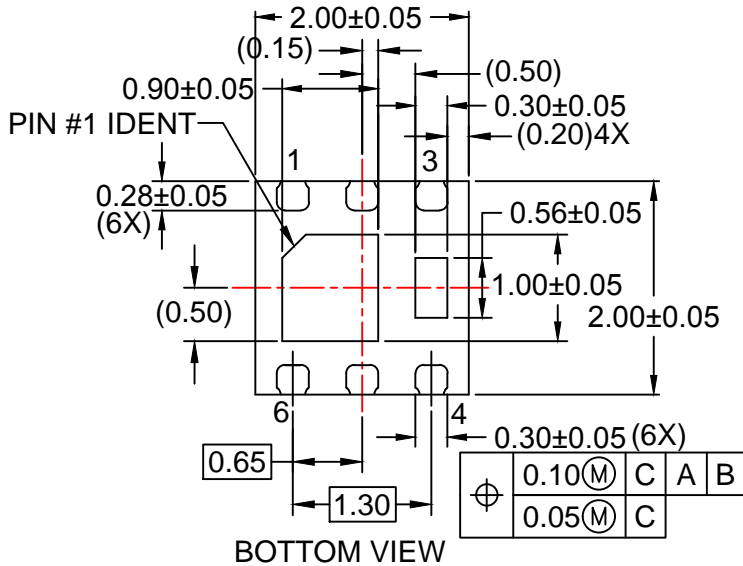
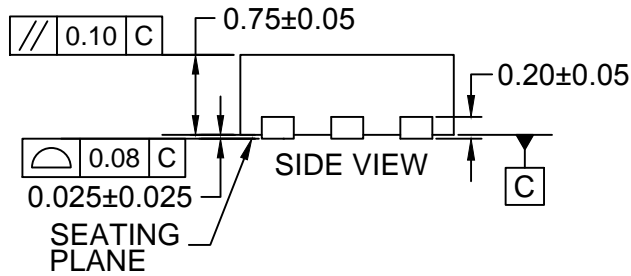
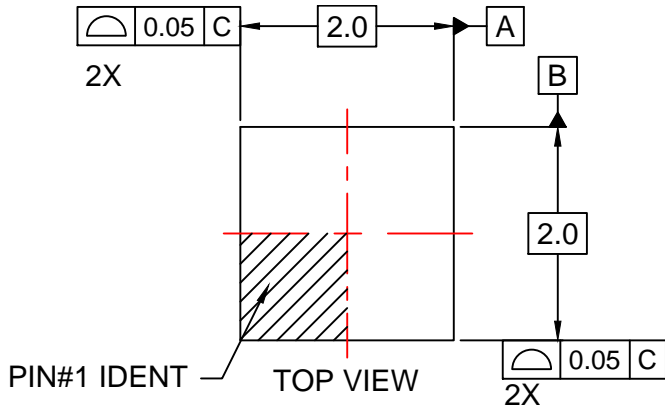


Figure 12. Output Capacitance

Typical Performance Characteristics (Continued)

Figure 12. Transient Thermal Response





NOTES:

- A. PACKAGE DOES NOT FULLY CONFORM TO JEDEC MO-229 REGISTRATION
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 2009.
- D. LAND PATTERN RECOMMENDATION IS EXISTING INDUSTRY LAND PATTERN.
- E. DRAWING FILENAME: MKT-MLP06Lrev4.



ON Semiconductor and  are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of ON Semiconductor's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using ON Semiconductor products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by ON Semiconductor. "Typical" parameters which may be provided in ON Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. ON Semiconductor does not convey any license under its patent rights nor the rights of others. ON Semiconductor products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use ON Semiconductor products for any such unintended or unauthorized application, Buyer shall indemnify and hold ON Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that ON Semiconductor was negligent regarding the design or manufacture of the part. ON Semiconductor is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor
19521 E. 32nd Pkwy, Aurora, Colorado 80011 USA
Phone: 303-675-2175 or 800-344-3860 Toll Free USA/Canada
Fax: 303-675-2176 or 800-344-3867 Toll Free USA/Canada
Email: orderlit@onsemi.com

N. American Technical Support: 800-282-9855 Toll Free
USA/Canada
Europe, Middle East and Africa Technical Support:
Phone: 421 33 790 2910
Japan Customer Focus Center
Phone: 81-3-5817-1050

ON Semiconductor Website: www.onsemi.com
Order Literature: <http://www.onsemi.com/orderlit>
For additional information, please contact your local
Sales Representative

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [ON Semiconductor manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NTE158](#) [NTE187A](#) [NTE195A](#) [NTE2302](#) [NTE2330](#) [NTE63](#) [C4460](#)
[2SA1419T-TD-H](#) [2SA1721-O\(TE85L,F\)](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC5488A-TL-H](#) [2SD2150T100R](#) [SP000011176](#) [FMMTA92QTA](#)
[2N2369ADCSM](#) [2SC2412KT146S](#) [2SC5490A-TL-H](#) [2SD1816S-TL-E](#) [2SD1816T-TL-E](#) [CMXT2207 TR](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#)
[US6T6TR](#) [732314D](#) [CMXT3906 TR](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [UMX21NTR](#) [EMT2T2R](#) [MCH6102-TL-E](#)
[FP204-TL-E](#) [NJL0302DG](#) [2N3583](#) [2SA1434-TB-E](#) [2SC3143-4-TB-E](#) [2SD1621S-TD-E](#) [NTE103](#) [30A02MH-TL-E](#) [NSV40301MZ4T1G](#)
[NTE101](#) [NTE13](#) [NTE15](#)