UH8JT & UHF8JT

Vishay General Semiconductor



ELECTRICAL CHARACTERISTICS (T _C = 25 °C unless otherwise noted)									
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT			
Reverse current (2)	V _R = 600 V	T _A = 25 °C T _A = 125 °C	I _R	-	5.0 100	μΑ			
Maximum reverse recovery time	I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A		t _{rr}	-	25	ns			
	$I_F = 1.0 \text{ A}, \text{ dI/dt} = 50 \text{ A/}\mu\text{s}, \ V_R = 30 \text{ V}, I_{rr} = 0.1 I_{RM}$			-	45				
Typical softness factor (t _b /t _a)	$I_F = 8 \text{ A}, \text{ dI/dt} = 200 \text{ A/}\mu\text{s},$ $V_R = 400 \text{ V}, T_J = 125 ^{\circ}\text{C}$		S	0.5	-	-			
Typical reverse recovery current			I _{RM}	7.0	7.7	Α			
Typical stored charge			Q_{rr}	160	-	nC			
Typical forward recovery time	$I_F = 8 \text{ A}, \text{ dI/dt} = 64 \text{ A/}\mu\text{s}, \ V_F = 1.1 \text{ x } V_F \text{ max}.$		t _{fr}	150	-	ns			

Notes:

(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T _C = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	UH8JT	UHF8JT	UNIT			
Typical thermal resistance from junction to case	$R_{ hetaJC}$	2.0	4.0	°C/W			

ORDERING INFORMATION (Example)								
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE			
TO-220AC	UH8JT-E3/45	1.83	45	50/tube	Tube			
ITO-220AC	UHF8JT-E3/45	1.72	45	50/tube	Tube			

RATINGS AND CHARACTERISTICS CURVES

 $(T_A = 25 \, ^{\circ}C \text{ unless otherwise noted})$

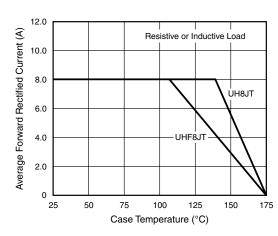


Figure 1. Maximum Forward Current Derating Curve

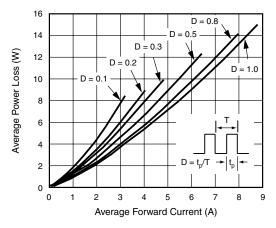


Figure 2. Forward Power Loss Characteristics





Vishay General Semiconductor

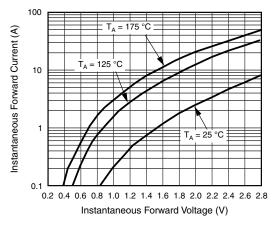


Figure 3. Typical Instantaneous Forward Characteristics

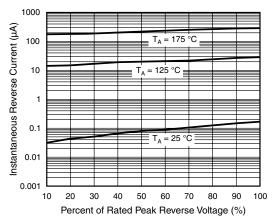


Figure 4. Typical Reverse Leakage Characteristics

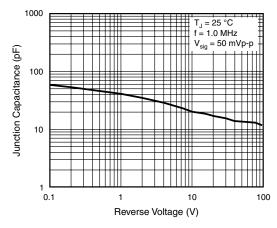


Figure 5. Typical Junction Capacitance

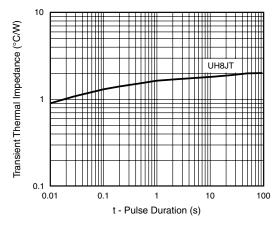


Figure 6. Typical Transient Thermal Impedance

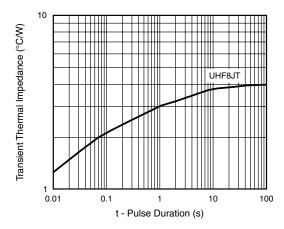


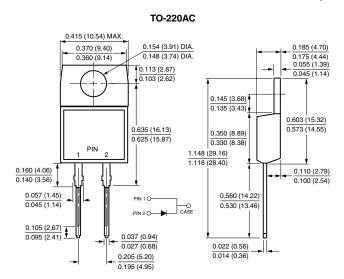
Figure 7. Typical Transient Thermal Impedance

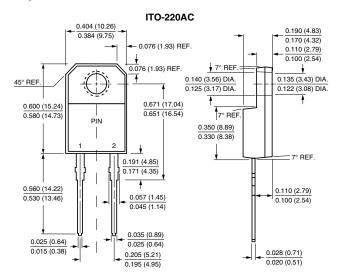
UH8JT & UHF8JT

Vishay General Semiconductor



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





Legal Disclaimer Notice



Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

Revision: 02-Oct-12 Document Number: 91000