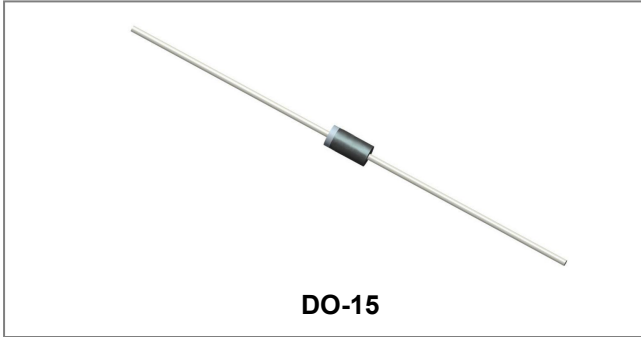


HER208G

HIGH EFFICIENCY RECTIFIERS

Reverse Voltage - 1000 Volts Forward Current - 2.0 Amperes



Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Ultra-fast switching for high efficiency
- Low reverse leakage
- Glass Passivated Die Construction
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014 ounce, 0.40 grams

Maximum Ratings

Characteristics	Symbol	Condition	Max.	Units
Repetitive Peak Reverse Voltage	V_{RRM}	-	1000	V
RMS Voltage	V_{RMS}	-	700	V
DC Blocking Voltage	V_{DC}	-	1000	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_A = 50^\circ\text{C}$ rectangular wave form	2.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	60	A

Electrical Characteristics

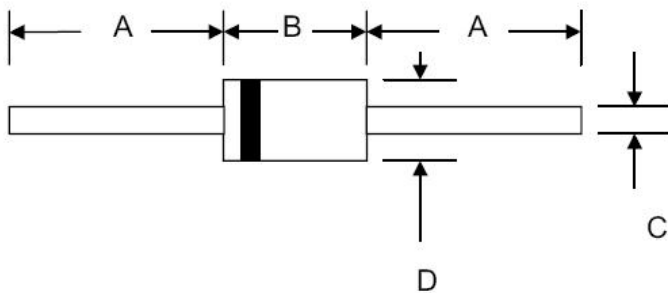
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 2.0A, Pulse, $T_J = 25^\circ\text{C}$	1.41	1.7	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	3	5	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 100^\circ\text{C}$	-	100	μA
Junction Capacitance	C_J	@ $V_R = 4\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	20	-	pF
Reverse Recovery Time	T_{rr}	$I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$	-	70	ns

* Pulse width < 300 μs , duty cycle < 2%

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Thermal-Mechanical Specifications

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	-	50	°C/W

Mechanical Dimensions DO-15


SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	5.5	7.62	0.217	0.300
C	0.7	0.9	0.028	0.034
D	2.6	3.6	0.104	0.140

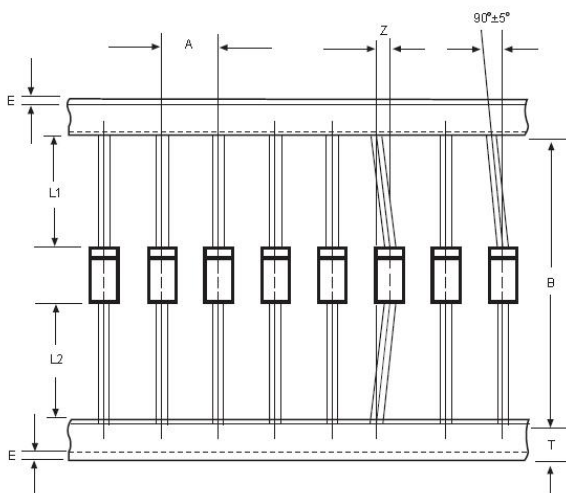
Ordering Information

Device	Package	Shipping
HER208G	DO-15 (Pb-Free)	3000pcs /tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


HER208G = Part Name

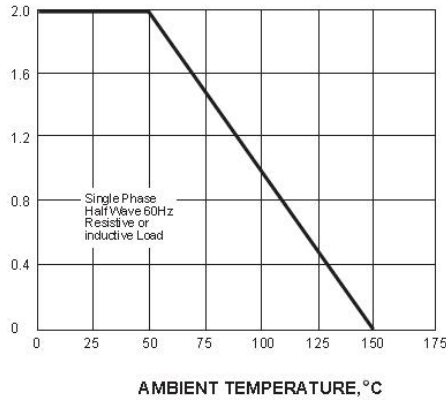
Carrier Tape Specification DO-15


SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

Ratings and Characteristics Curves

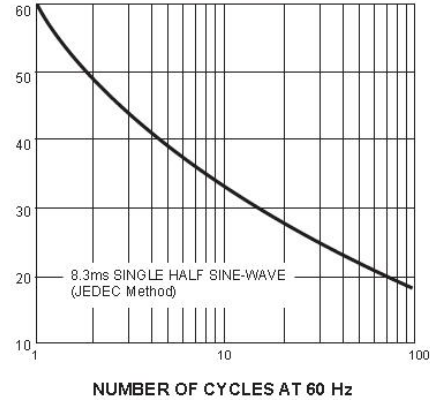
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



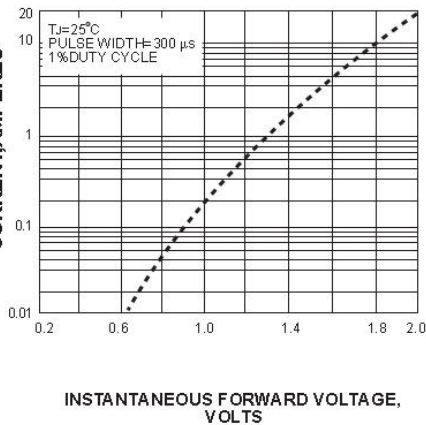
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



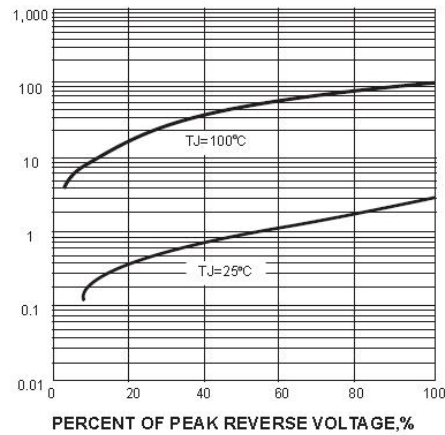
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



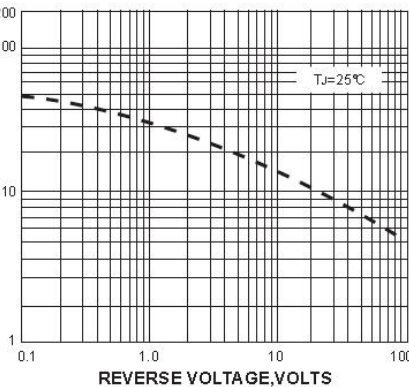
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4- TYPICAL REVERSE CHARACTERISTICS



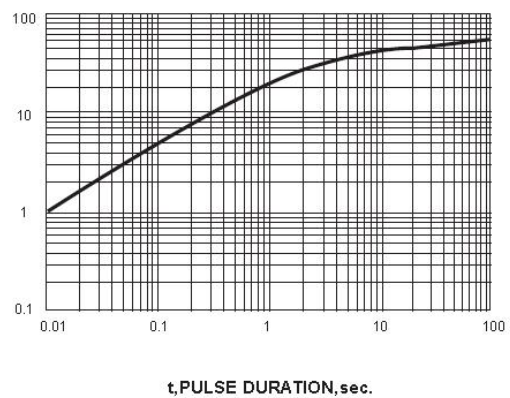
JUNCTION CAPACITANCE, pF

FIG. 5- TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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