

High-reliability discrete products and engineering services since 1977

## HER151G-HER158G

### HIGH EFFICIENCY RECTIFIERS

#### **FEATURES**

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°c unless otherwise noted)

Characteristics	Symbol	HER								
Characteristics		151G	152G	153G	154G	155G	156G	157G	158G	Units
Maximum Forward Rectified Current T <sub>A</sub> = 50°C	Io	1.5						Α		
Maximum Forward Surge Current	I <sub>FSM</sub>	50					Α			
$\begin{aligned} &\text{Maximum Reverse Current} \\ &\text{V}_{R} = \text{V}_{RRM}, \text{T}_{J} = 25^{\circ}\text{C} \\ &\text{V}_{R} = \text{V}_{RRM}, \text{T}_{J} = 125^{\circ}\text{C} \end{aligned}$	I <sub>R</sub>	5.0 150					μΑ			
Typical Junction Capacitance <sup>(1)</sup> f = 1MHz and applied 4V DC Reverse Voltage	Cı	30					pF			
Storage Temperature Range	T <sub>STG</sub>	-65 to +175					°C			
Operating Temperature Range	Tı	-55 to +150					°C			
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V
RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	٧
Continuous Reverse Voltage	V <sub>R</sub>	50	100	200	300	400	600	800	1000	V
Maximum Forward Voltage @ I <sub>F</sub> = 1.5A	V <sub>F</sub>	1.0	1.0	1.0	1.3	1.3	1.85	1.85	1.85	٧
Maximum Reverse Recovery Time (2)	t <sub>rr</sub>	50	50	50	50	50	75	75	75	ns

Note 1: Thermal resistance from junction to ambient and from junction to lead length 0.375" PCB mounted.

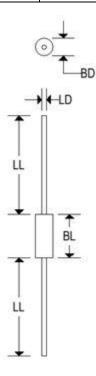
Note 2: Reverse recovery time test condition,  $I_F$  = 0.5A,  $I_R$  = 1.0A,  $I_{RR}$  = 0.25A



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### MECHANICAL CHARACTERISTICS

Case:	DO-15	
Marking:	Alpha-numeric	
Polarity:	Cathode band	



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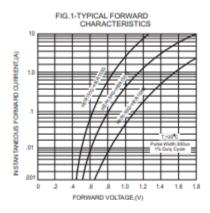
	DO-15							
	Inc	hes	Millimeters					
	Min	Max	Min	Max				
BD	0.100	0.140	2.540	3.556				
BL	0.200	0.300	5.080	7.620				
LD	0.028	0.032	0.711	0.813				
LL	1.000	. 0	25.400	3550				



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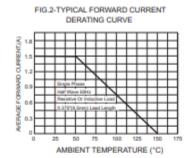
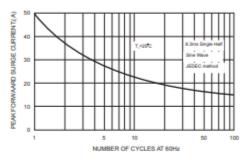


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



NOTES: 1. Rise Time\* 7ns max., input impedance\* 1 megahm 23pF.

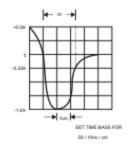


FIG.5-TYPICAL JUNCTION CAPACITANCE

