

High Efficient Rectifiers

Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

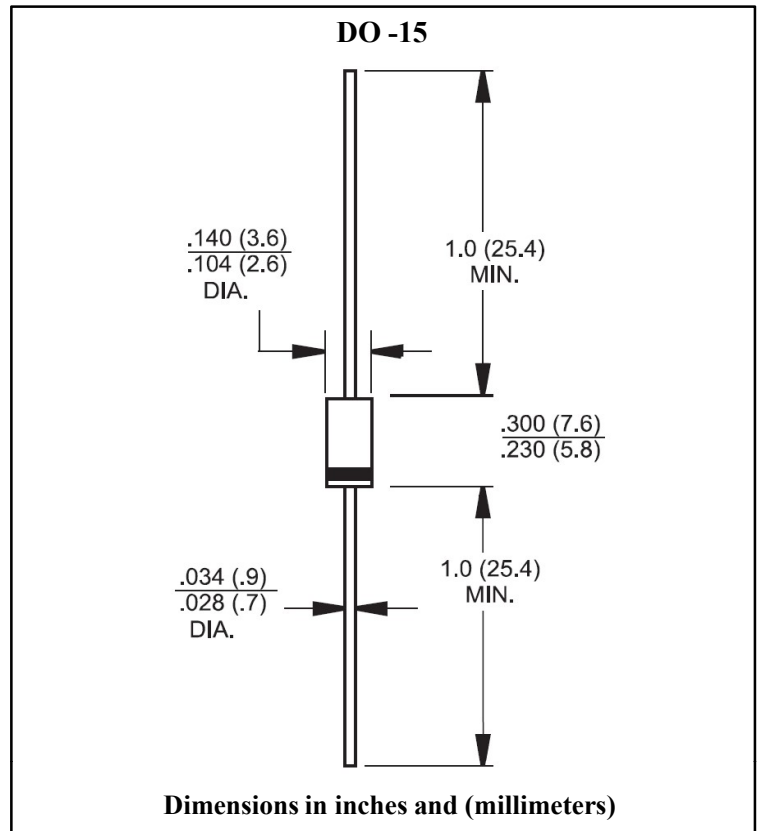
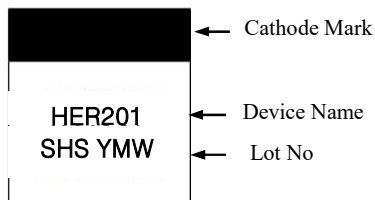
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Mechanical Data

- Case : Molded plastic DO-15
- Epoxy : UL 94V-O rate flame retardant
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- High temperature soldering guaranteed : 260°C/10 seconds/0.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Mounting position : Any
- Weight : 0.40 grams

Marking



Maximum Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified
 Single phase half wave 60 Hz, resistive or inductive load
 For capacitive load, derate current by 20%

Parameter	Symbol	HER 201	HER 202	HER 203	HER 204	HER 205	HER 206	HER 207	HER 208	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead Length	$I_{(AV)}$	2.0								A	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60								A	
Maximum Instantaneous Forward Voltage	V_F	1.0			1.3		1.7			V	IF=2A
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0								uA	Ta=25°C
		100									Ta=100°C
Maximum Reverse Recovery Time	t_{rr}	50					75			ns	Note 1
Typical Junction Capacitance	C_J	50					35			pF	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	60								°C/W	Note 3
Operation Junction Temperature Range	T_J	-55 to +150								°C	
Storage Temperature Range	T_{STG}	-55 to +150								°C	

Note 1. Reverse Recovery Time Test Conditions : $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Note 3. Mount on Cu-Pad Size 5mm × 5mm on P.C.B



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

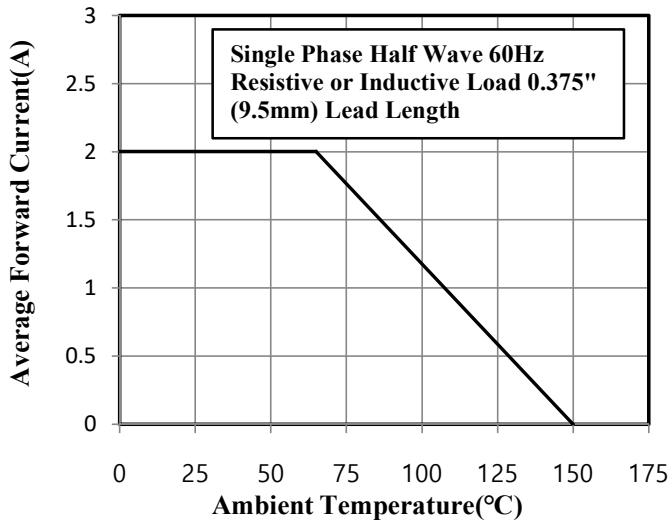


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

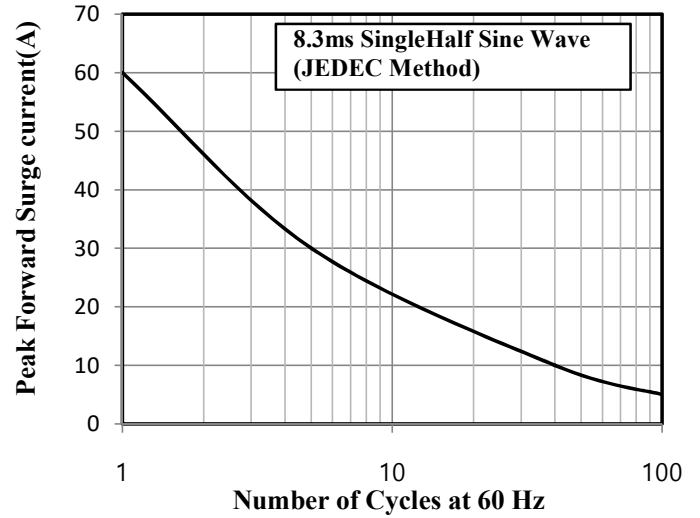


Fig.3 Typical Instantaneous Forward Characteristics

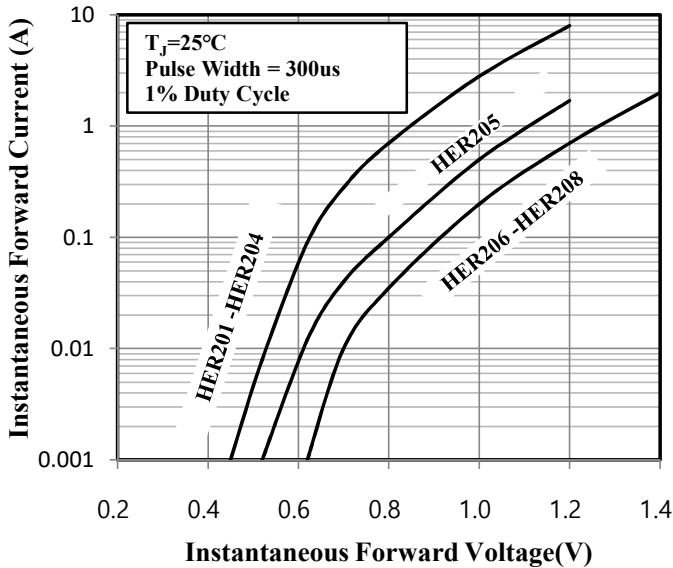


Fig.4 Typical Junction Capacitance

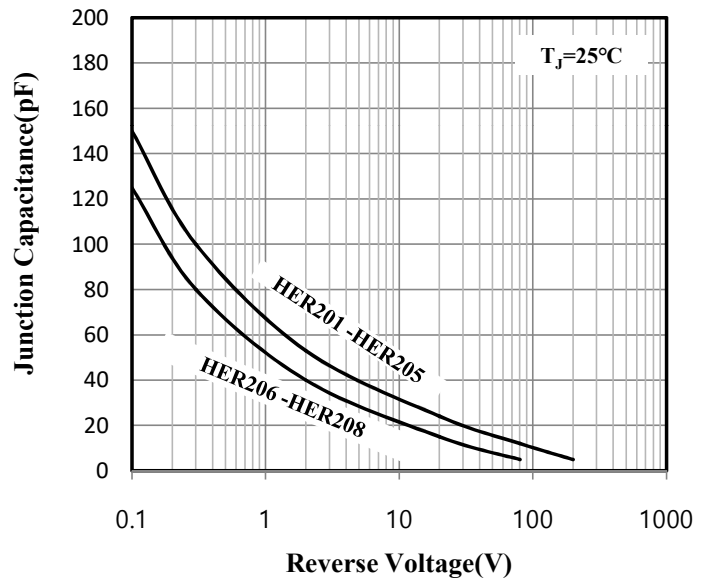


Fig.5 Typical Reverse Characteristics

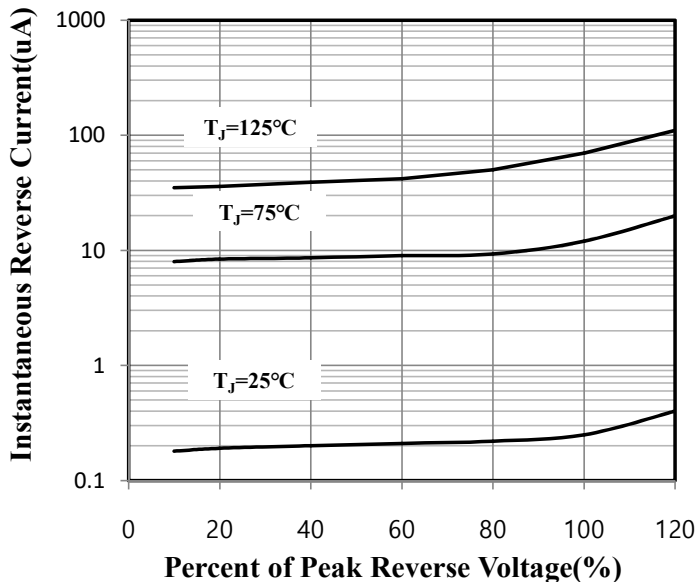


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

