

VOLTAGE RANGE CURRENT 50 to 1000 Volts 1.5 Ampere

#### **Features**

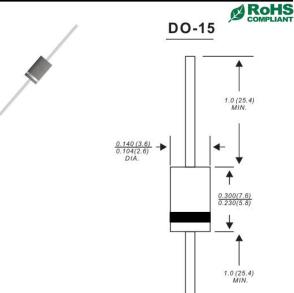
- High speed switching
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High reliability
- High temperature soldering guaranteed 260°C/10 seconds,0.375"(9.5mm)lead length at 5 lbs(2.3kg) tension

#### Mechanical Data

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012ounce, 0.39 grams

# Maximum Ratings and Electrical Characteristics

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



Dimensions in inches and (millimeters)

	201	202	203	204	205	206	207	208	UNITS
$V_{RRM}$	50	100	200	300	400	600	800	1000	Volts
$V_{RMS}$	35	70	140	210	280	420	560	700	Volts
$V_{DC}$	50	100	200	300	400	600	800	1000	Volts
I <sub>(AV)</sub>	2.0					Amps			
I <sub>FSM</sub>	60					Amps			
$V_{\scriptscriptstyle F}$	1.0 1.3			1.7			Volts		
l <sub>R</sub>	5.0							μΑ	
	100								
$T_{RR}$	50 75					nS			
С	30			20		рF			
$R_{\theta JA}$	50					°C/W			
$T_{\scriptscriptstyle J},T_{\scriptscriptstyle STG}$	-55 to +150					°C			
	$\begin{array}{c} V_{\text{RMS}} \\ V_{\text{DC}} \\ I_{\text{(AV)}} \\ I_{\text{FSM}} \\ V_{\text{F}} \\ I_{\text{R}} \\ T_{\text{RR}} \\ C_{\text{J}} \\ R_{\text{BJA}} \end{array}$	V <sub>RMS</sub> 35 V <sub>DC</sub> 50 I <sub>(AV)</sub> I <sub>FSM</sub> V <sub>F</sub> I <sub>R</sub> C <sub>J</sub> R <sub>®JA</sub>	V <sub>RMS</sub> 35 70 V <sub>DC</sub> 50 100  I <sub>(AV)</sub> I <sub>FSM</sub> V <sub>F</sub> 1.0  I <sub>R</sub> T <sub>RR</sub> C <sub>J</sub> R <sub>θJA</sub>	V <sub>RMS</sub> 35 70 140 V <sub>DC</sub> 50 100 200 I <sub>(AV)</sub> I <sub>FSM</sub> V <sub>F</sub> 1.0  T <sub>R</sub> 50 C <sub>J</sub> 30 R <sub>θJA</sub>	V <sub>RMS</sub> 35 70 140 210 V <sub>DC</sub> 50 100 200 300 I <sub>(AV)</sub> 2. I <sub>FSM</sub> 6 V <sub>F</sub> 1.0 1. I <sub>R</sub> 5. T <sub>RR</sub> 50 C <sub>J</sub> 30 R <sub>BJA</sub> 5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	VRMS       35       70       140       210       280       420         VDC       50       100       200       300       400       600         I <sub>RM</sub> 60         VF       1.0       1.3       5.0         100         T <sub>RR</sub> 50       50         C <sub>J</sub> 30       50         R <sub>BJA</sub> 50	V <sub>RMS</sub> 35 70 140 210 280 420 560 V <sub>DC</sub> 50 100 200 300 400 600 800  I <sub>(AV)</sub> 2.0  I <sub>FSM</sub> 60  V <sub>F</sub> 1.0 1.3 1.7  I <sub>R</sub> 50 75  C <sub>J</sub> 30 20  R <sub>BJA</sub> 50	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

#### Notes:

- 1. Reverse Recovery Test Conditions:If=0.5A,Ir=1.0A,Irr=0.25A.
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 3. Thermal Resistance from Junction to Ambient with 0.375" (9.5mm) lead length, PCB mounted.



**VOLTAGE RANGE CURRENT** 

50 to 1000 Volts 1.5 Ampere

Ratings and Characteristic Curves (T<sub>A</sub>=25°C unless otherwise noted)

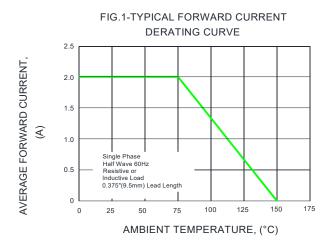


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

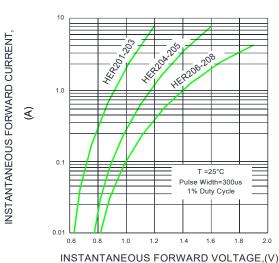


FIG.5-TYPICAL JUNCTION CAPACITANCE

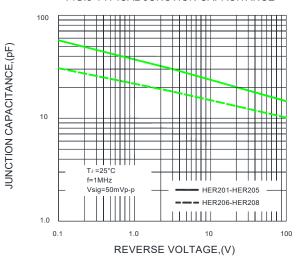


FIG.2-MAXIMUM NON-REPETITIVE PEAK

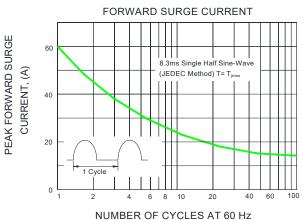
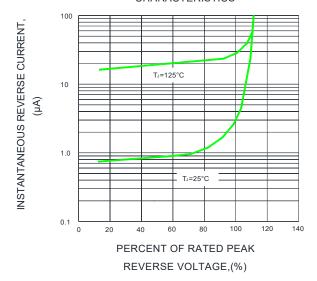
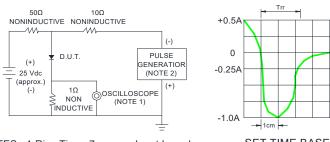


FIG.4-TYPICAL REVERSE **CHARACTERISTICS** 



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time=7ns mas. Input Impedance= 1 magohm. 22pF

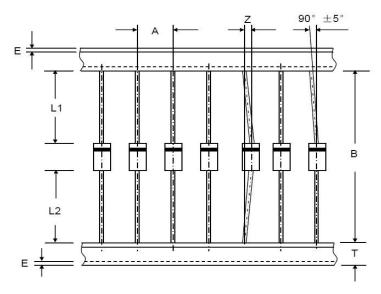
2.Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm



VOLTAGE RANGE CURRENT 50 to 1000 Volts 1.5 Ampere

# Axial Lead Taping Specifications for Rectifiers



Component Outline	Component Pitch A	Inner Tap	e Pitch B	Cumulative	
Component Outline	±0.5mm	+0.5mm -0.4mm		Tolerance	
		-0.4	111111		
DO-204AC(DO-15)	5.0mm	52.4mm	26.0mm	2.0mm/20pitch	

ltem	Symbol	Specifications(mm)	Specifications(inch)
Component alignment	Z	1.2 max	0.048 max
Tape width	Т	6.0±0.4	0.236±0.016
Exposed adhesive	Е	0.8 max	0.032 max
Body eccentricity	IL1-L2I	1.0 max	0.040 max



VOLTAGE RANGE CURRENT 50 to 1000 Volts 1.5 Ampere

### Disclaimer

The information presented in this document is for reference only. Chongqing changjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Changjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http://www.czlangjie.com, or consult your nearest Langjie's sales office for further assistance.