

## DO-27 Plastic-Encapsulate Diodes

### UF5400 THRU UF5408 High Efficient Rectifier Diodes

#### Features

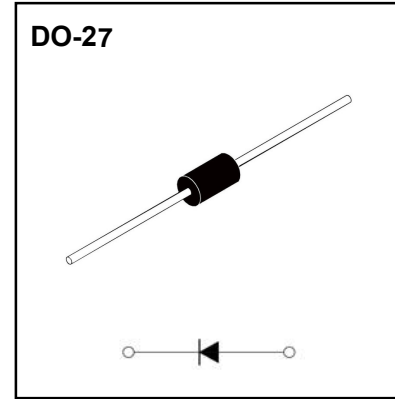
- $I_{F(AV)}$  3.0A
- $V_{RRM}$  50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

#### Applications

- Rectifier

#### Marking

- UF540X
- X : From 0 To 8



#### Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	UF540								
				0	1	2	3	4	5	6	7	8
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		50	100	200	300	400	500	600	800	1000
Maximum RMS Voltage	$V_{RMS}$	V		35	70	140	210	280	350	420	560	700
Maximum DC Blocking Voltage	$V_{DC}$	V		50	100	200	300	400	500	600	800	1000
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_L=55^\circ\text{C}$	3								
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	150								
Operation Junction and Storage Temperature Range	$T_J, T_{STG}$	$^\circ\text{C}$		-55 ~ +150								

#### Electrical Characteristics ( $T=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	UF540							
				0	1	2	3	4	5	6	7
Maximum Peak Forward Voltage	$V_F$	V	$I_F=3.0A$	1.0			1.3	1.7			
Maximum Peak Reverse Current	$I_{RRM1}$	$\mu\text{A}$	$V_{RM}=V_{RRM}$				5				
	$I_{RRM2}$						50				
Maximum reverse recovery time	$t_{rr}$	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	50				75			
Typical junction capacitance	$C_J$	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.	45							
Typical Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient	20							
	$R_{\theta J-L}$		Between junction and lead	10							

#### Notes:

Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

# Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

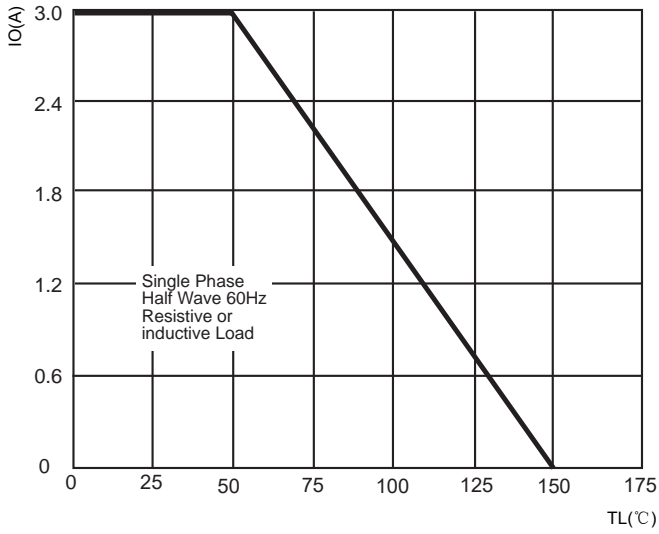


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

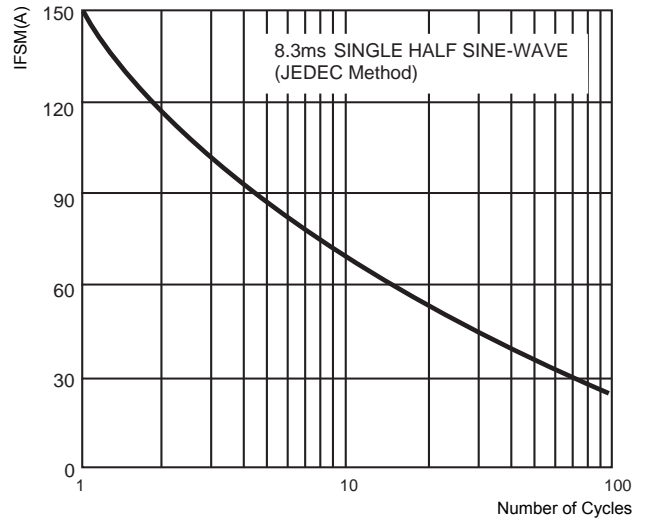


FIG.3: TYPICAL FORWARD CHARACTERISTICS

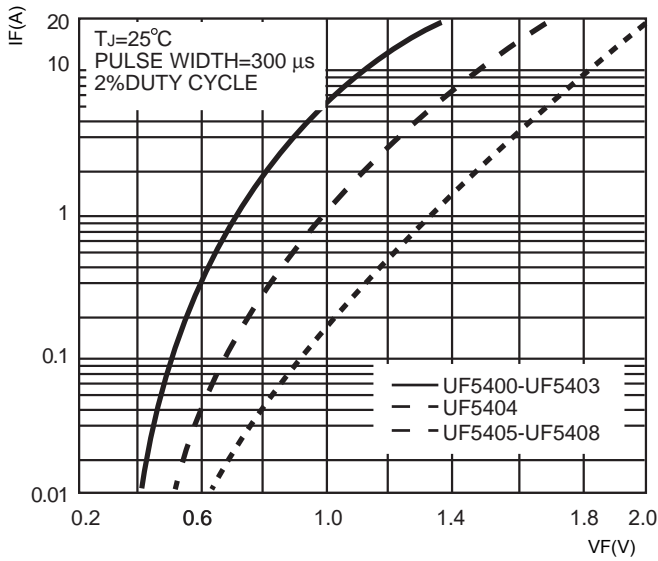


FIG.4: TYPICAL REVERSE CHARACTERISTICS

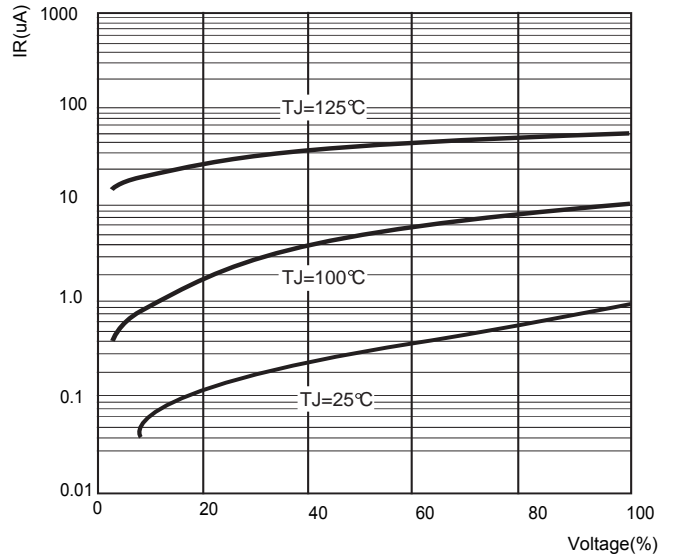
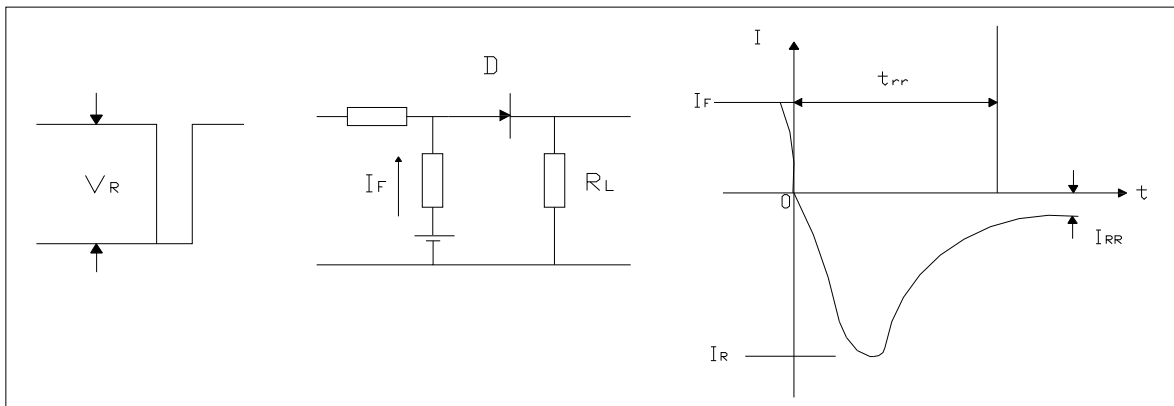
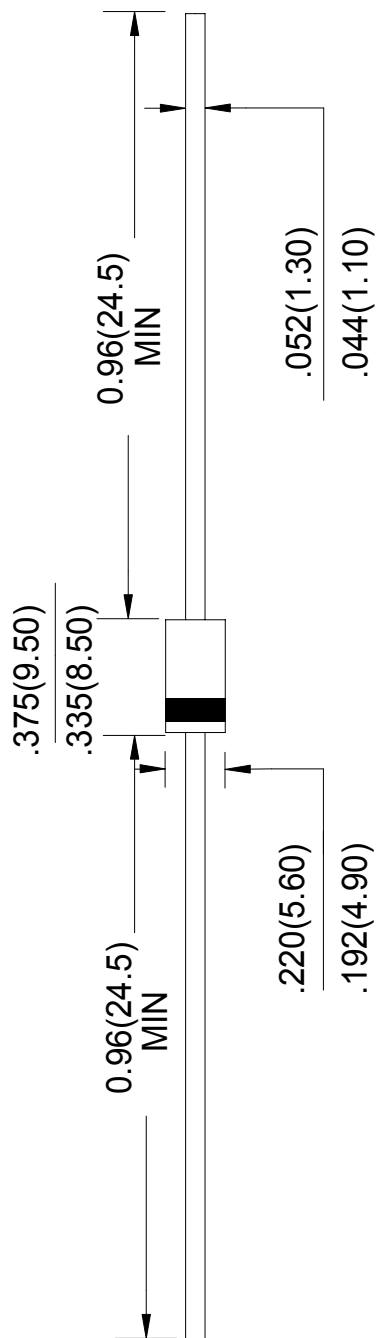


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



# DO-27 Package Outline Dimensions



Unit: in inches (millimeters)

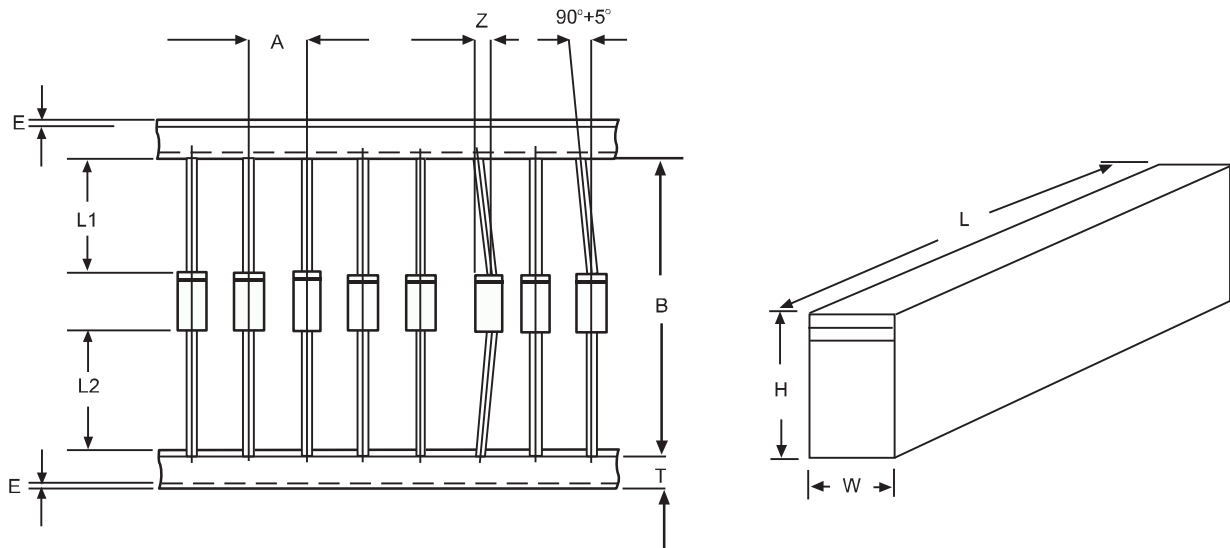
### NOTICE

JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

# Ammo Box Packaging Specifications For Axial Lead Rectifiers

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below

COMPONENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B	CUMULATIVE PITCH TOLERANCE
	$\pm 0.5\text{mm}(.020'')$	$+0.5\text{mm}(.020'')$	
R-1	5.0mm	26.0mm	2.0mm/20pitch
R-1	5.0mm	52.4mm	2.0mm/10pitch
A-405	5.0mm	26.0mm	2.0mm/20pitch
A-405	5.0mm	52.4mm	2.0mm/10pitch
DO-34/DO-35	5.0mm	26.0mm	2.0mm/20pitch
DO-34/DO-35	5.0mm	52.4mm	2.0mm/10pitch
DO-41	5.0mm	26.0mm	2.0mm/20pitch
DO-41	5.0mm	52.4mm	2.0mm/10pitch
DO-15	5.0mm	52.4mm	2.0mm/10pitch
DO-27	10.0mm	52.4mm	2.0mm/10pitch
R-6	10.0mm	52.4mm	2.0mm/10pitch



ITEM	SYMBOL	SPECIFICATIONS(mm)	SPECIFICATIONS(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	$6.0\pm 0.4$	$0.236\pm 0.016$
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	$ L1-L2 $	1.0max	0.040max
Box length	L	$255.0\pm 5.0$	$10.04\pm 0.197$
Box width	W	$78.0\pm 5.0$	$3.07\pm 0.197$
Box height	H	$150.0\pm 5.0$	$5.91\pm 0.197$

NOTE: Each component lead shall be sandwiched between tapes for A minimum of 3.2mm(0.126'')