

DO-41 Plastic-Encapsulate Diodes

Fast Recovery Rectifier

Features

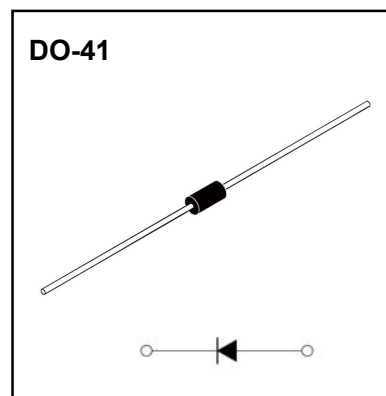
- I_o 1A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- FR10X
X: From 1 to 7



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	FR						
				101	102	103	104	105	106	107
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V		35	70	140	280	420	560	700
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_a=50^\circ\text{C}$	1.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	30						
Junction Temperature	T_J	$^\circ\text{C}$		-55~+125						
Storage Temperature	T_{STG}	$^\circ\text{C}$		-55 ~ +150						

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

Item	Symbol	Unit	Conditions	FR							
				101	102	103	104	105	106	107	
Peak Forward Voltage	V_{FM}	V	$I_{FM}=1.0\text{A}$	1.3							
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$							
	I_{RRM2}			$T_a=125^\circ\text{C}$							
Reverse Recovery time	t_{rr}	ns	$I_F=0.5\text{A}$ $I_R=1\text{A}$ $I_{RR}=0.25\text{A}$	150			250	500			
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient		55						
	$R_{\theta J-L}$		Between junction and lead		25						

Typical Characteristics

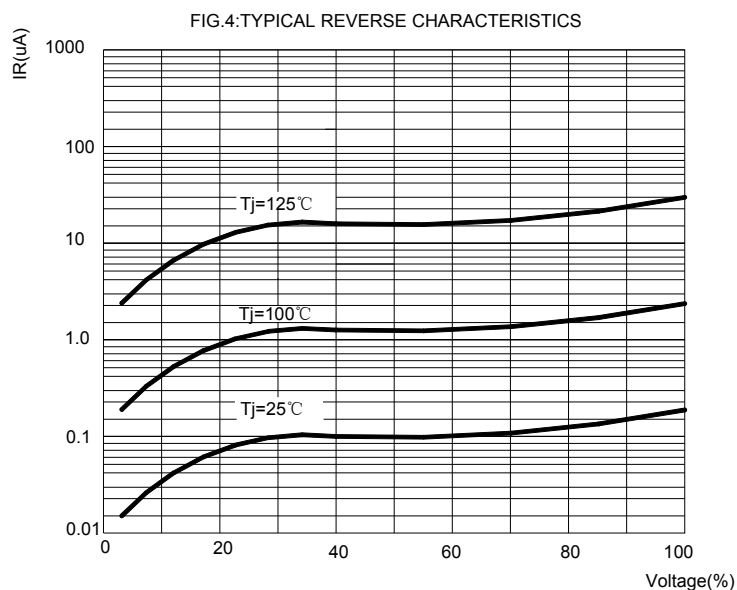
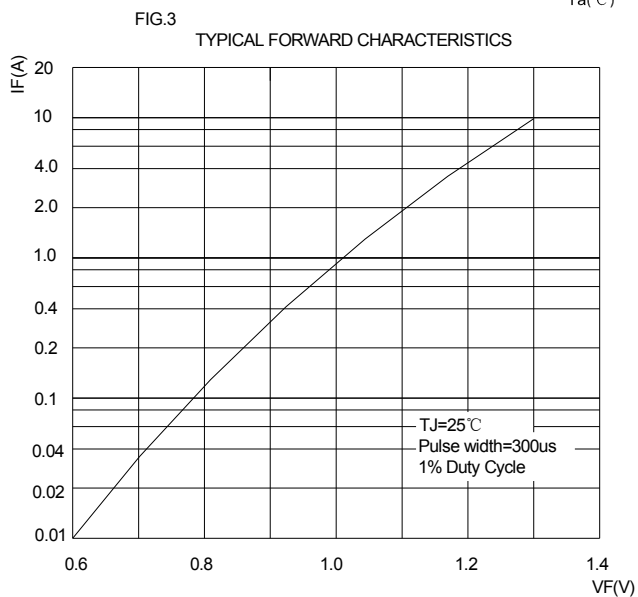
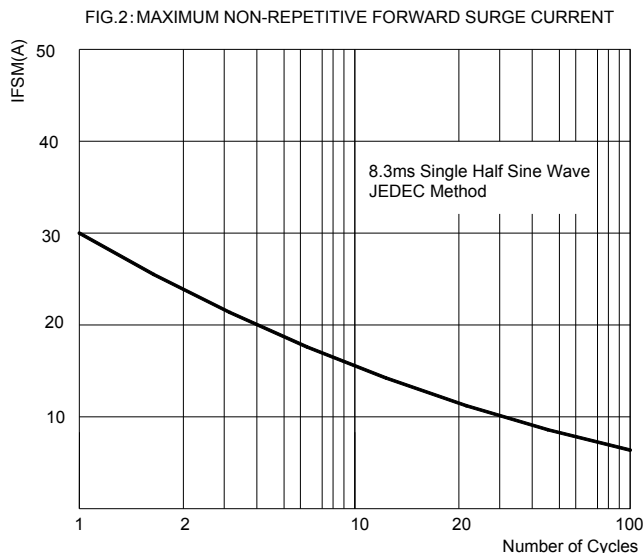
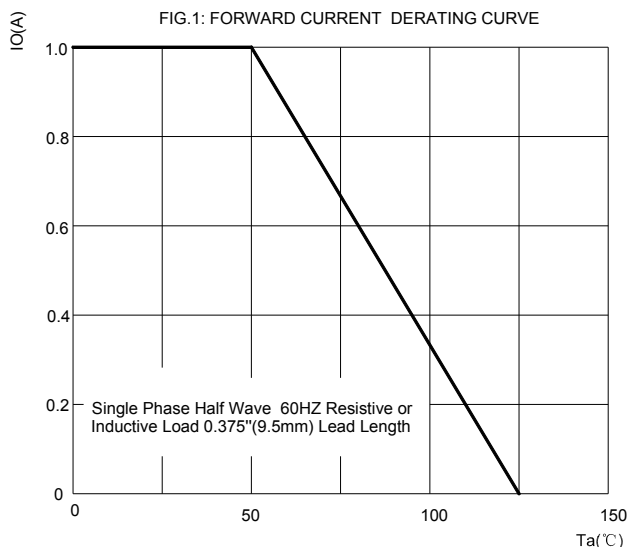
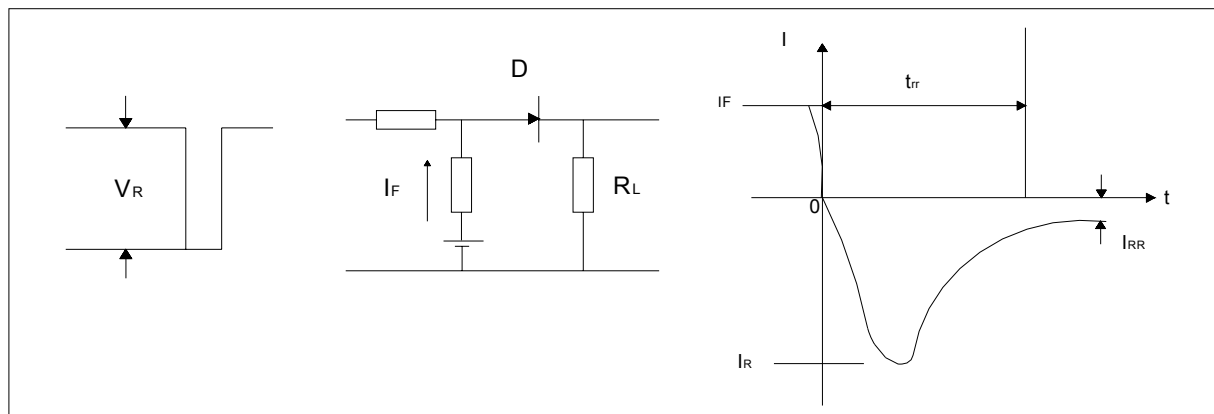
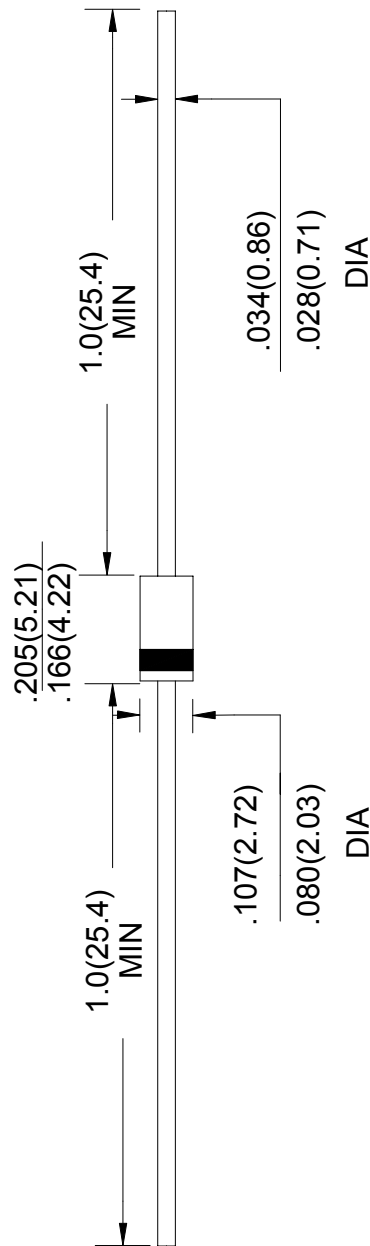


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



DO-41 Package Outline Dimensions



Unit: in inches (millimeters)

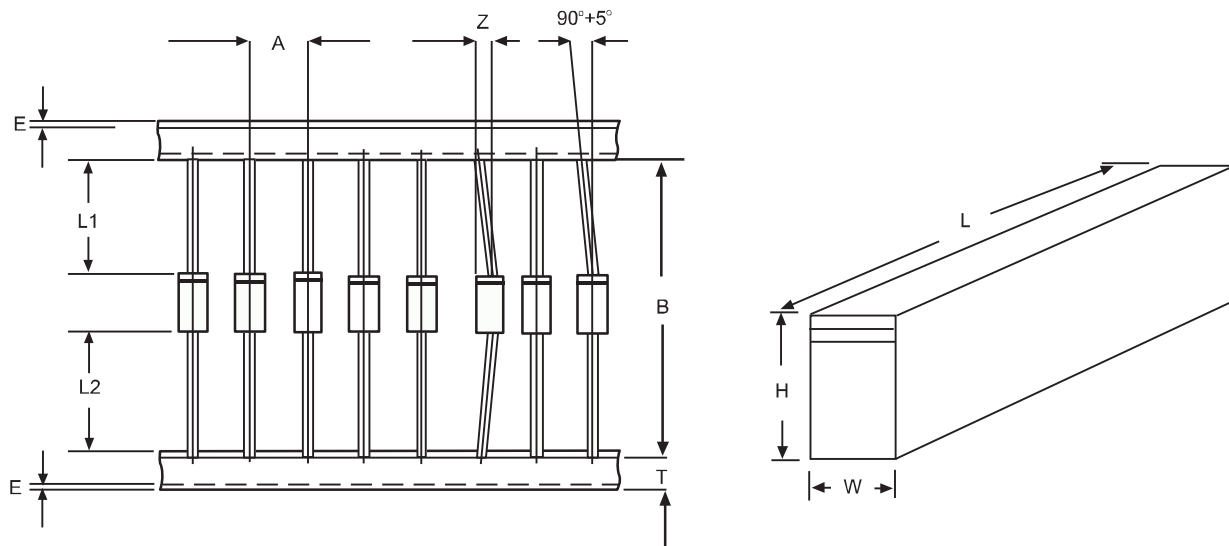
NOTICE

JSKD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSKD 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 ± 0.4	0.236 ± 0.016
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	$ L1-L2 $	1.0max	0.040max
Box length	L	255.0 ± 5.0	10.04 ± 0.197
Box width	W	78.0 ± 5.0	3.07 ± 0.197
Box height	H	150.0 ± 5.0	5.91 ± 0.197

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