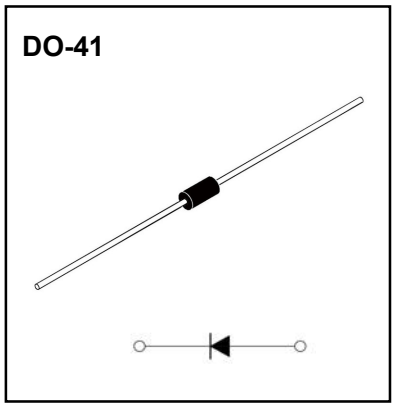
SZCJ Shenzhen Changji Semiconductor Co., LTD.

DO-41 Plastic-Encapsulate Diodes

FR101 THRU FR107 Fast Recovery Rectifier Diodes

Features

- $I_{F(AV)}$ 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	Test 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
Maximum DC Blocking Voltage	V_{DC}	V		50	100	200	400	600	800	1000
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, Ta=75℃	1.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	30						
Junction Temperature	T_J	℃		-55 ~ +150						
Storage Temperature	T_{STG}	℃		-55 ~ +150						

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		FR						
					101	102	103	104	105	106	107
Peak Forward Voltage	V_{FM}	V	I_{FM}=1.0A		1.3						
Peak Reverse Current	I_{RRM2}	μA	$V_{RM}=V_{RRM}$	Ta=25℃	5						
	I_{RRM1}			Ta=100℃	50						
Reverse Recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A,I_{rr} =0.25A		150				250	500	
Typical junction capacitance	C_J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.		15						
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	Between junction and ambient		50						
	$R_{\theta J-L}$		Between junction and lead		8						

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

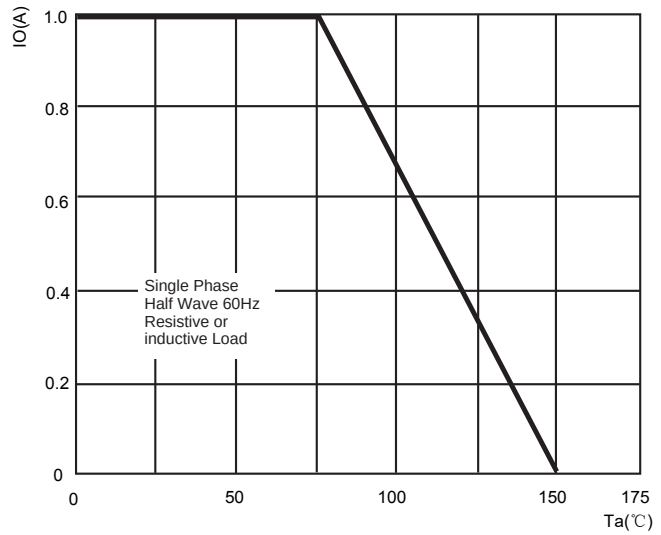


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

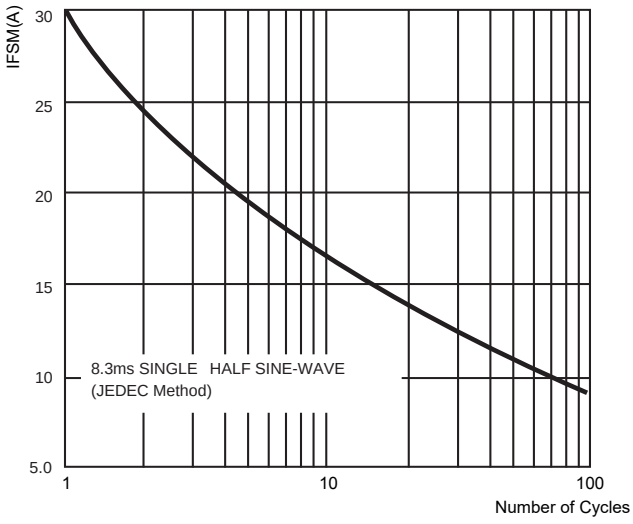


FIG.3: TYPICAL FORWARD CHARACTERISTICS

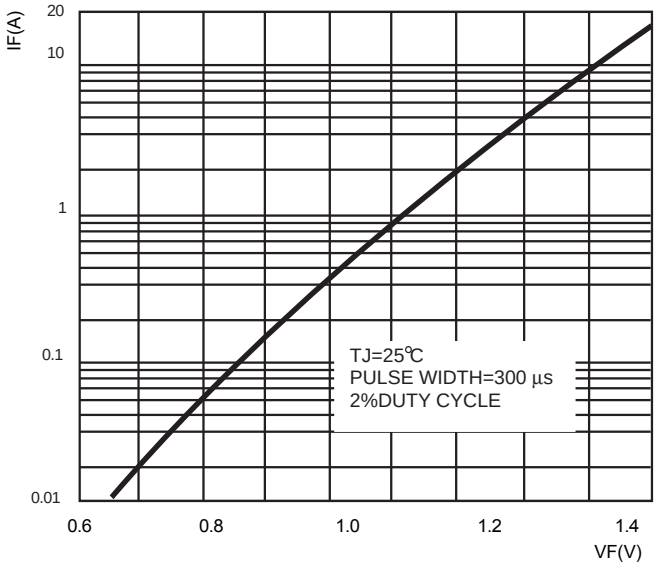


FIG.4：TYPICAL REVERSE CHARACTERISTICS

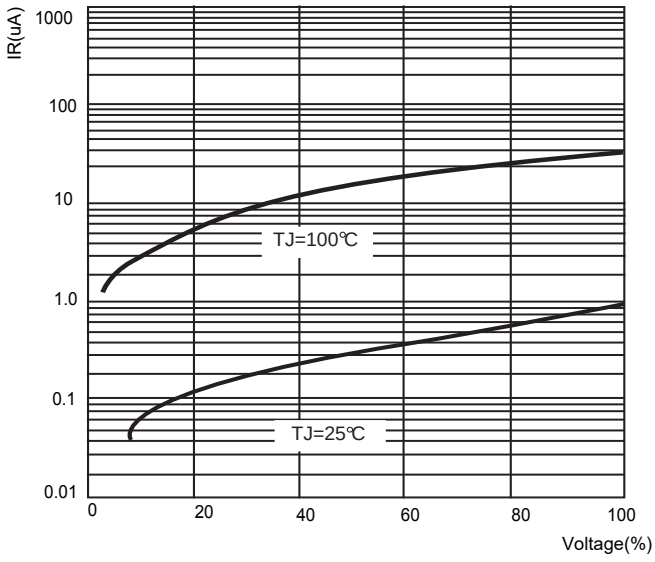
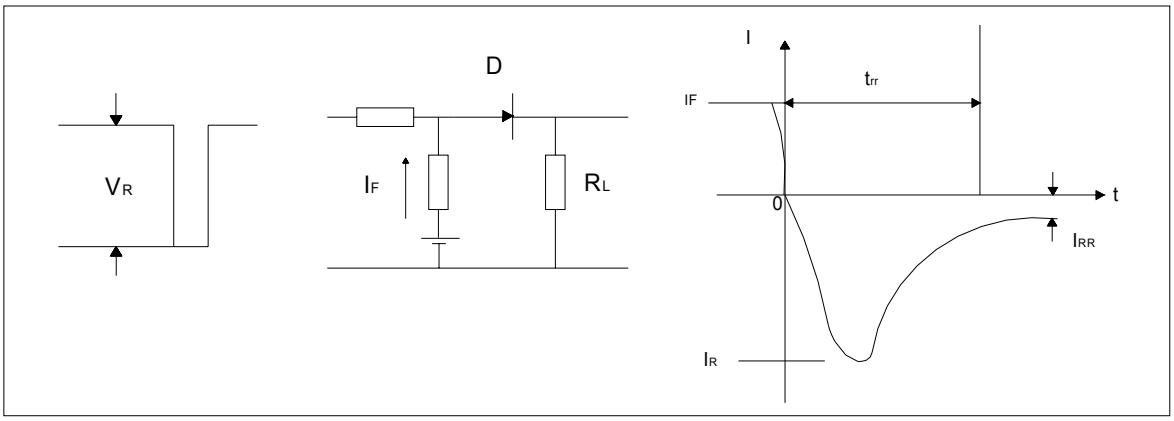
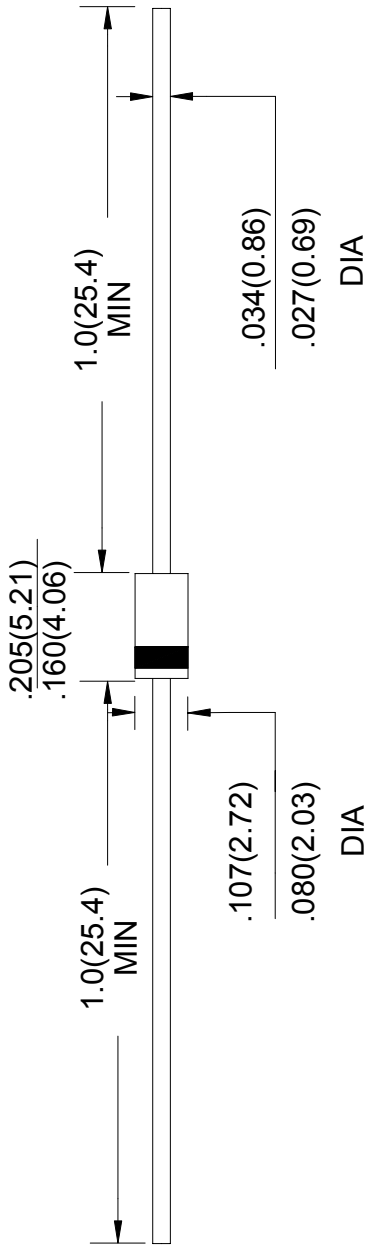


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



DO- 41 Package Outline Dimensions



Unit: in inches (millimeters)

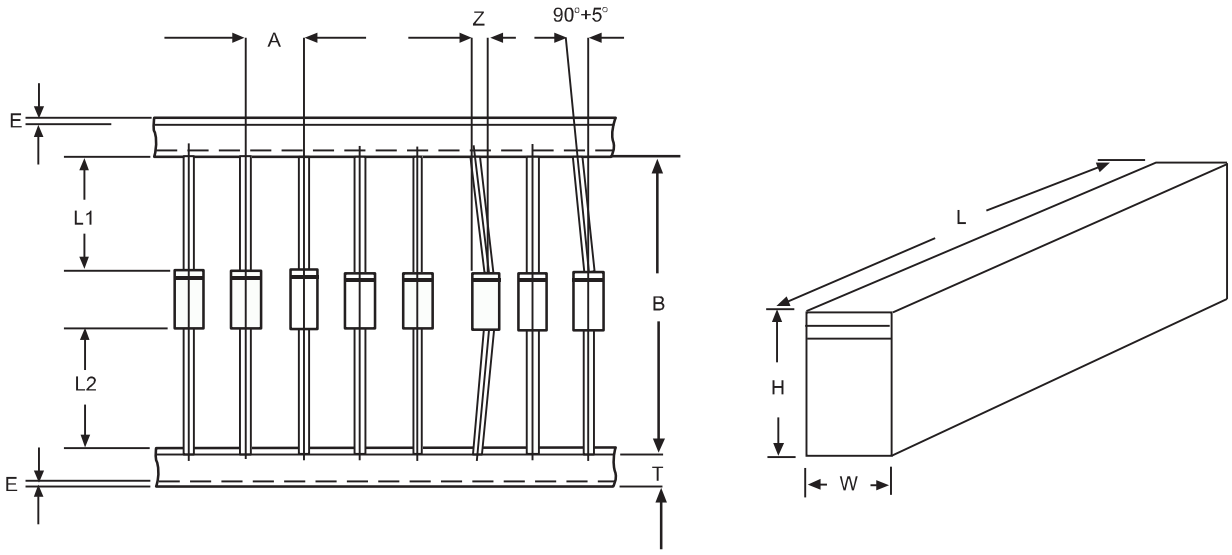
NOTICE

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

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
	±0.5mm(.020``)	+0.5mm(.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``)