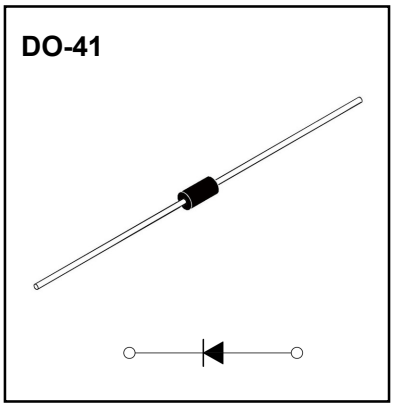
DO-41 Plastic-Encapsulate Diodes

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode



Applications

- Rectifier

Marking

- 1N400X

  X：From 1 To 7

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	1N40						
				01	02	03	04	05	06	07
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，T_a=75℃	1						
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		Max
Maximum Peak Forward Voltage	V_{FM}	V	I_{FM}=1.0A		1.1
Maximum Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM}	T_a=25℃	5
	I_{RRM2}			T_a=100℃	50
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

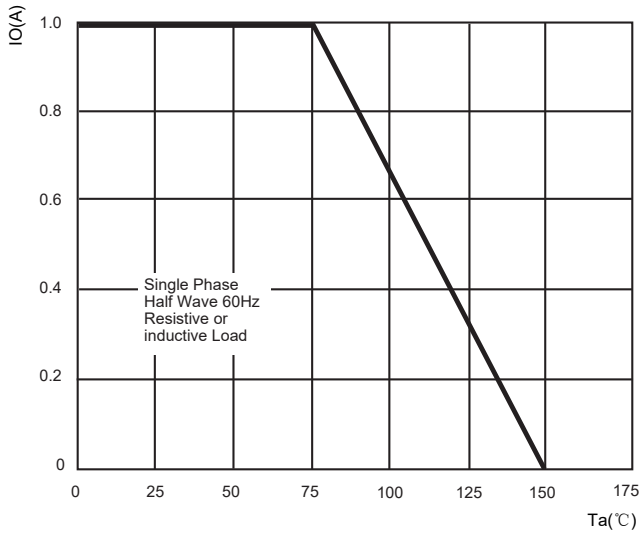


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

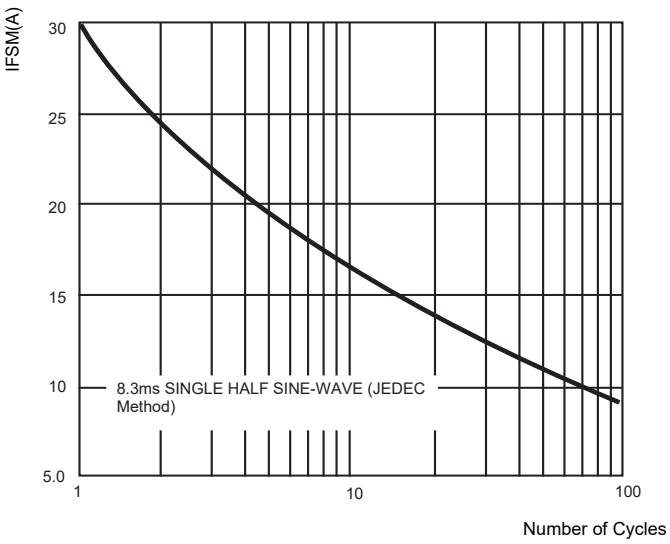


FIG.3: TYPICAL FORWARD CHARACTERISTICS

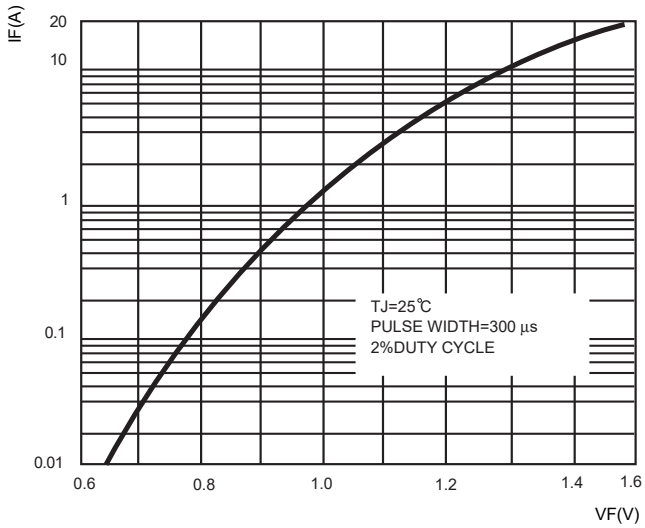
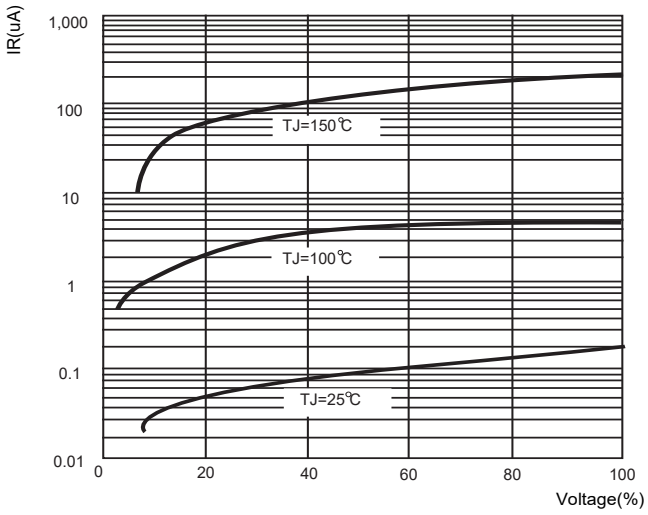
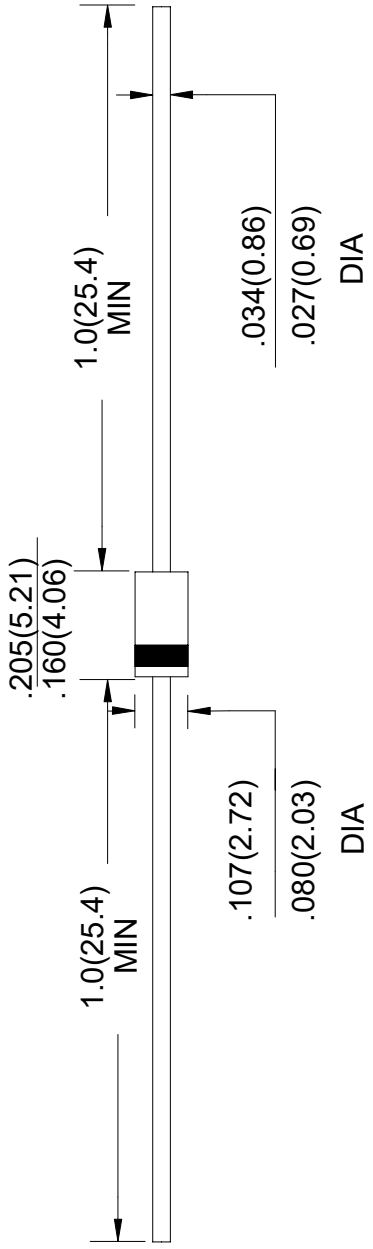


FIG.4：TYPICAL REVERSE CHARACTERISTICS





Unit: in inches (millimeters)