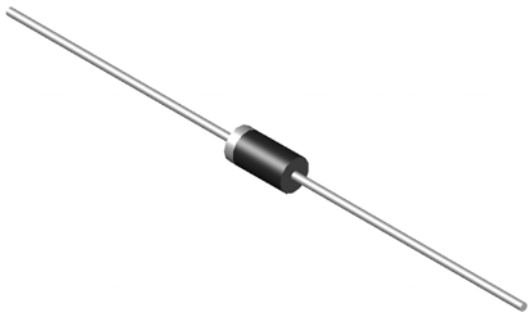
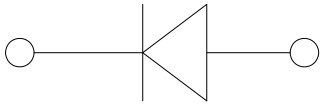
Super Fast Recovery Rectifier





Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.

Mechanical Data

- **Package**: DO-204AC(DO-15)
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	MUR220	MUR240	MUR260
Device marking code			MUR220	MUR240	MUR260
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	200	400	600
Maximum RMS Voltage	V_{RMS}	V	140	280	420
Maximum DC blocking Voltage	V_{DC}	V	200	400	600
Average Forward Current @60Hz sine wave, Resistance load, Ta =75℃	$I_{F(AV)}$	A	2.0		
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	60		
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			120		
Current squared time @1ms≤t≤8.3ms Tj=25℃，Rating of per diode	I^2t	A^2s	15		
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	39	25	24
Storage Temperature	Tstg	℃	-55 ~ +150		
Junction Temperature	Tj	℃	-55 ~ +150		

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MUR220	MUR240	MUR260
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=2.0A	0.875	1.25	
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	2.5		
			T_j =125℃	100		
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	25	50	

■Dynamic Characteristics

◆ MUR220

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	Tj=25℃	I_F=1A，di/dt=-50A/us V_{RM}=30V	-	26	-
			Tj=25℃	I_F=2A di/dt=-200A/us V_{RM}=100V	-	21	-
			Tj=125℃		-	23	-
Peak recovery current	I_{RRM}	A	Tj=25℃		-	2.6	-
			Tj=125℃		-	3.9	-
Reverse recovery charge	Qrr	nC	Tj=25℃		-	26.8	-
			Tj=125℃		-	44.9	-
Non-repetitive avalanche energy	E_{AS}	mJ	Tj=25℃	I_R=1.6 A，L=15 mH	19.2	-	-

◆ MUR240

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	Tj=25℃	I_F=1A，di/dt=-50A/us V_{RM}=30V	-	35	-
			Tj=25℃	I_F=2A di/dt=-200A/us V_{RM}=200V	-	27	-
			Tj=125℃		-	44	-
Peak recovery current	I_{RRM}	A	Tj=25℃		-	3.6	-
			Tj=125℃		-	5.8	-
Reverse recovery charge	Qrr	nC	Tj=25℃		-	49.5	-
			Tj=125℃		-	128.1	-
Non-repetitive avalanche energy	E_{AS}	mJ	Tj=25℃	I_R=1.0 A，L=15 mH	7.5	-	-

◆ MUR260

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	Tj=25℃	I_F=1A，di/dt=-50A/us V_{RM}=30V	-	46	-
			Tj=25℃	I_F=2A di/dt=-200A/us V_{RM}=400V	-	36	-
			Tj=125℃		-	56	-
Peak recovery current	I_{RRM}	A	Tj=25℃		-	3.6	-
			Tj=125℃		-	5.2	-
Reverse recovery charge	Qrr	nC	Tj=25℃		-	63.5	-
			Tj=125℃		-	144.5	-
Non-repetitive avalanche energy	E_{AS}	mJ	Tj=25℃	I_R=1.3A，L=15 mH	12.7	-	-

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	MUR220	MUR240	MUR260
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	50		

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR220 ~ MUR260	D1	Approximate 0.38	3000	3000	30000	Tape
MUR220 ~ MUR260	C1	Approximate 0.38	500	500	25000	Bulk

■ Characteristics(Typical)

FIG.1: Io-Ta Curve

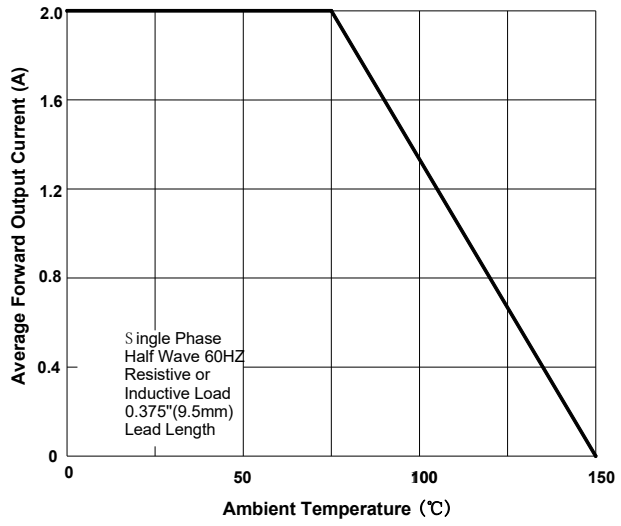


FIG.2: Forward Surge Current Capability

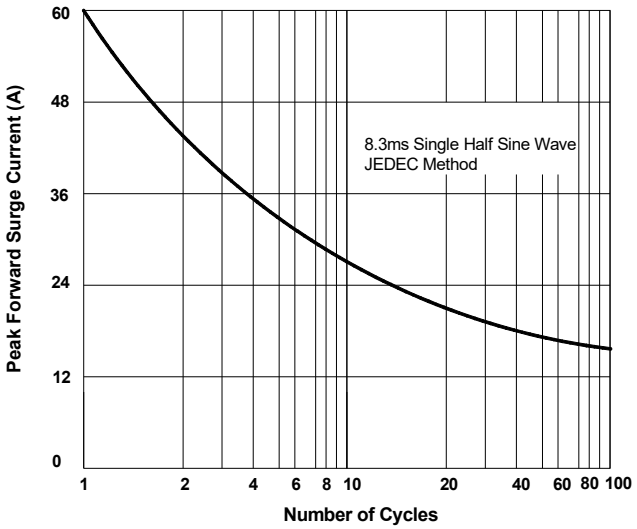


FIG.3: Forward Voltage

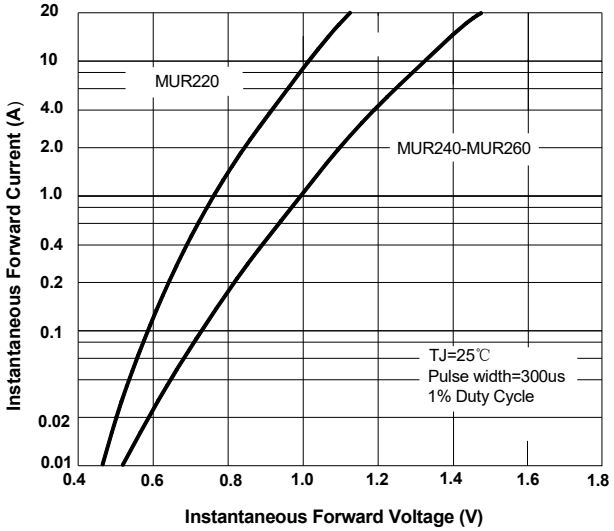


FIG.4: Typical Reverse Characteristics

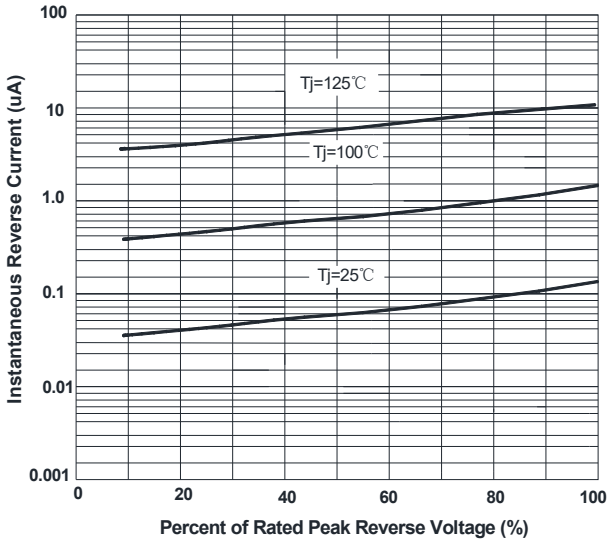
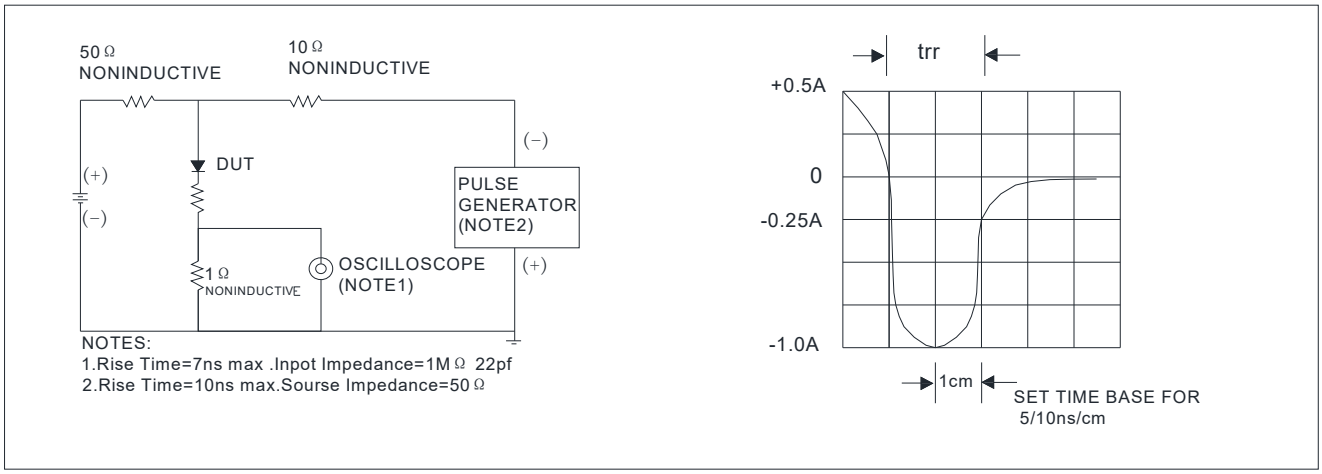
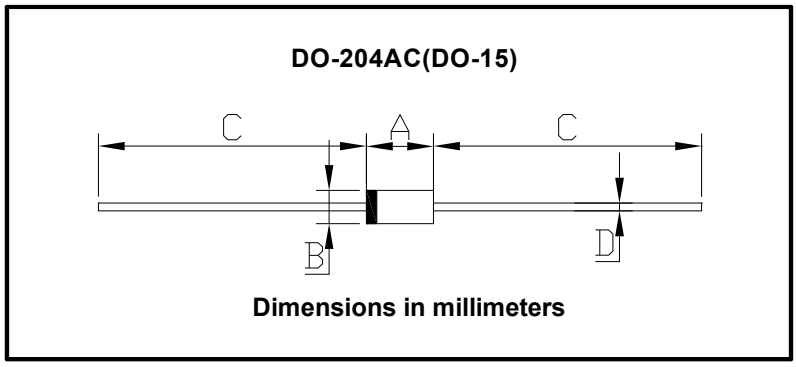


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



DO-204AC(DO-15)		
Dim	Min	Max
A	5.80	7.60
B	2.60	3.60
C	25.4	/
D	0.70	0.90

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