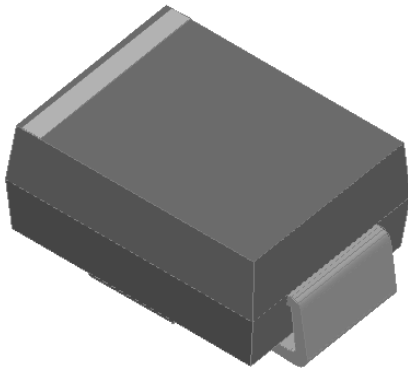


Surface Mount Super Fast Recovery Rectifier

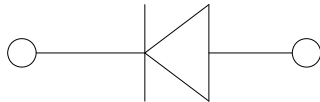


Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.



Mechanical Data

- **Package:** DO-214AA (SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURSA360BA
Device marking code			A360BA
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	600
Maximum RMS Voltage	V _{RMS}	V	420
Maximum DC blocking Voltage	V _{DC}	V	600
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	I _O	A	3.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	150
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			300
Current squared time @1ms≤t≤8.3ms T _j =25°C	I ² t	A ² s	93.375
Storage temperature	T _{stg}	°C	-55 ~ +150
Junction temperature	T _j	°C	-55 ~ +150



MURSA360BA

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MURSA360BA
Maximum instantaneous forward voltage	V _F	V	I _{FM} =3.0A	1.25
Maximum reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	50
Maximum DC reverse current at rated DC blocking voltage	I _R	μA	T _j =25°C	5
			T _j =125°C	50
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	29

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURSA360BA
Typical Thermal resistance	R _{θJ-A} ⁽¹⁾	°C/W	58
	R _{θJ-L} ⁽¹⁾		18
	R _{θJ-C} ⁽¹⁾		15

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

■ Characteristics (Typical)

FIG.1: I_o-T_L Curve

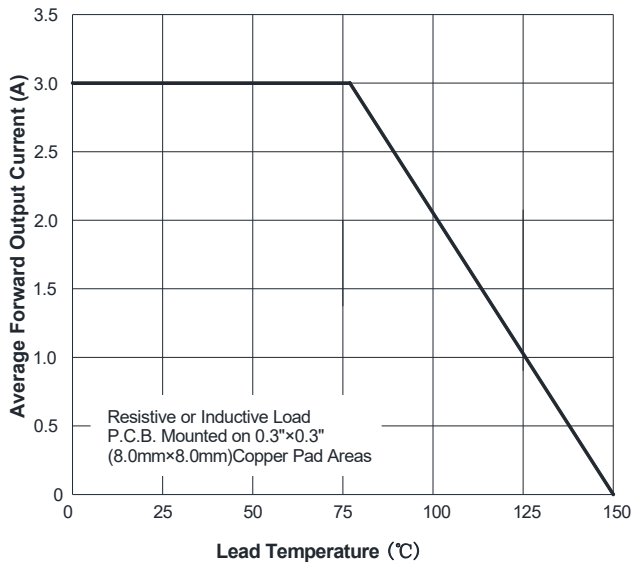
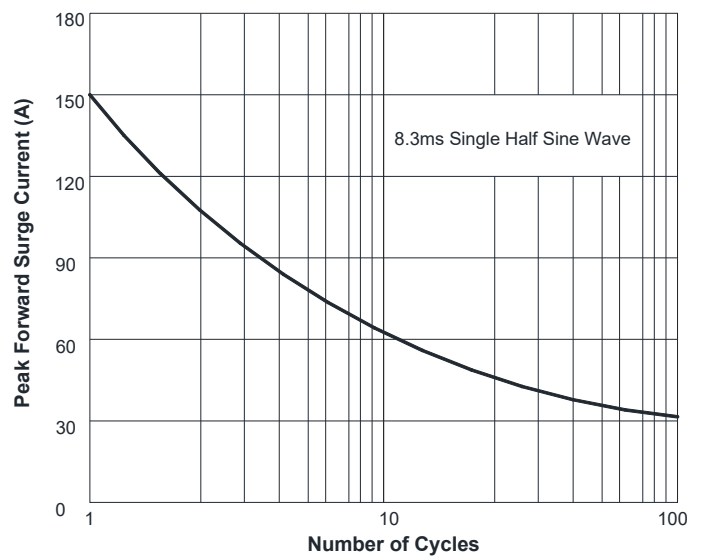


FIG.2: Forward Surge Current Capability





MURSA360BA

■ Characteristics (Typical)

FIG.3: Typical Forward Voltage

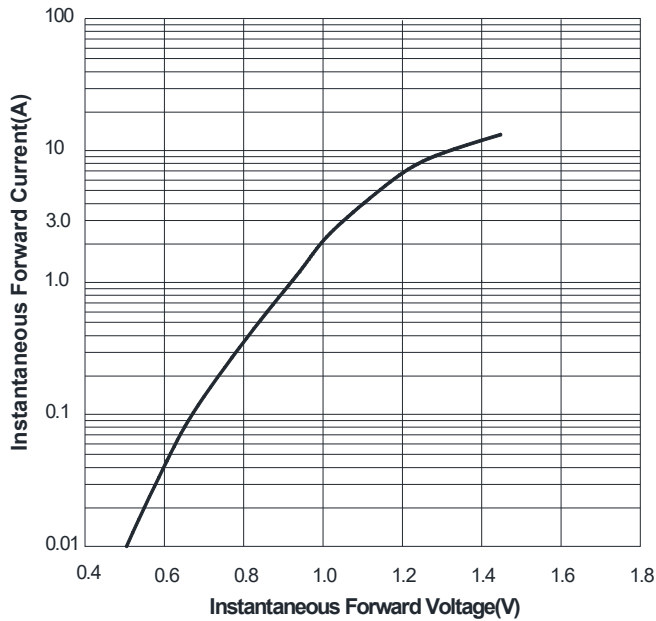


FIG.4: Typical Reverse Characteristics

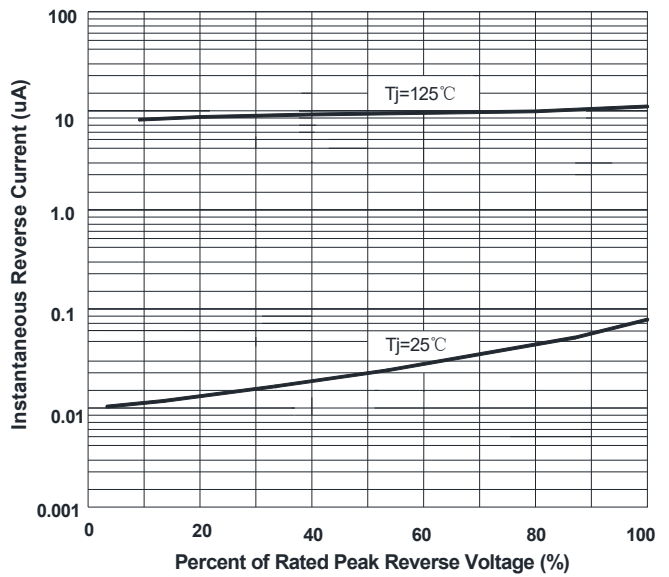
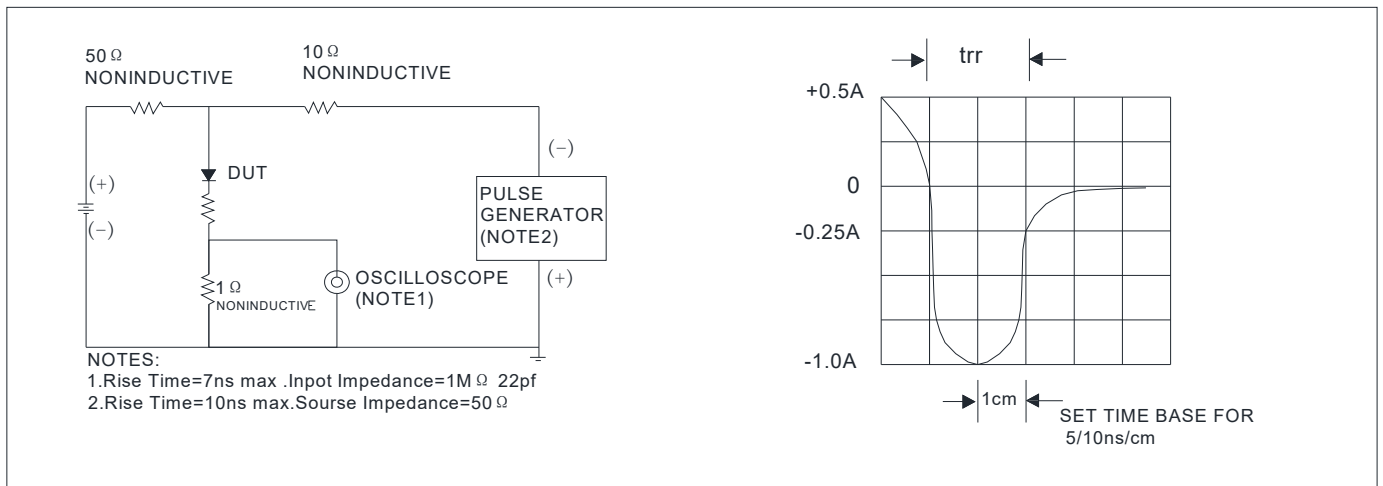


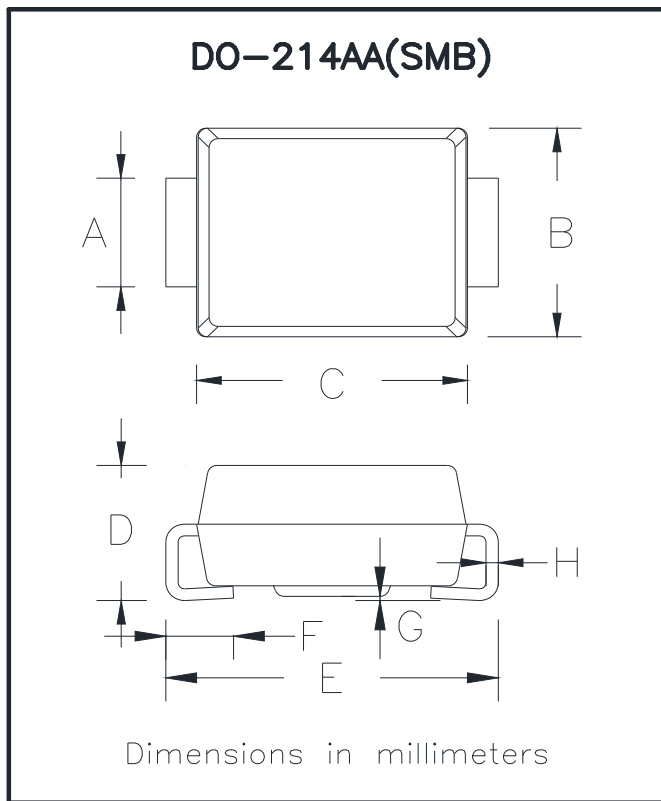
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Ordering Information (Example)

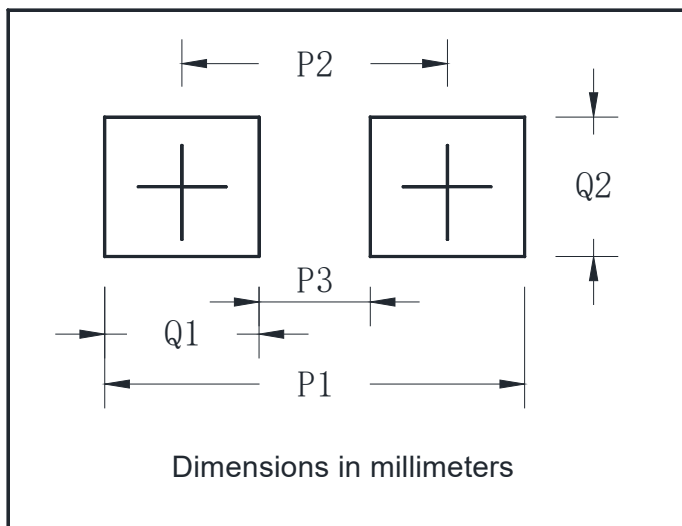
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURSA360BA	F1	Approximate 0.096	3000	/	48000	13" reel
MURSA360BA	F2	Approximate 0.096	750	6000	24000	7" reel
MURSA360BA	F3	Approximate 0.096	500	4000	16000	7" reel

■ Outline Dimensions



DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.05	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.05	0.20
H	0.15	0.31

■ Suggested pad layout



DO-214AA(SMB)	
Dim	Millimeters
P1	6.8
P2	4.3
P3	1.8
Q1	2.5
Q2	2.3



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.