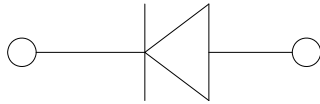
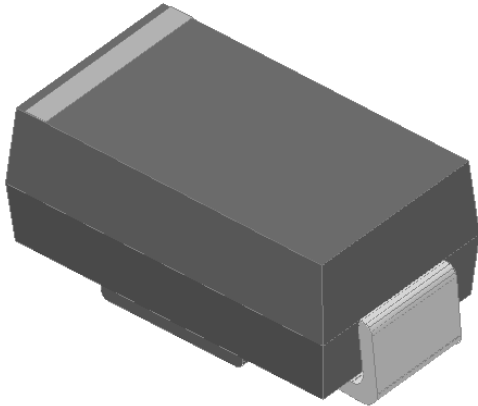


Surface Mount Super Fast Recovery Rectifier



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, automotive and telecommunication.

Mechanical Data

- **Package:** DO-214AC(SMA)
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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURS220AQ	MURS240AQ	MURS260AQ
Device marking code			MURS220A	MURS240A	MURS260A
Maximum Repetitive Peak Reverse Voltage	VRRM	V	200	400	600
Maximum RMS Voltage	VRMS	V	140	280	420
Maximum DC blocking Voltage	VDC	V	200	400	600
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	IO	A	2.0		
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	50		
Storage temperature	Tstg	°C	-55 ~ +150		
Junction temperature	Tj	°C	-55 ~ +150		

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MURS220AQ	MURS240AQ	MURS260AQ
Maximum instantaneous forward voltage	V _F	V	I _{FM} =2.0A	0.92	1.25	
Maximum reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	25	50	
Maximum DC reverse current at rated DC blocking voltage	I _R	μA	T _j =25°C	5.0		
			T _j =125°C	50		
Typical junction capacitance	C _j	pF	V _R =4V, f=1 MHz	26	25	22



MURS220AQ THRU MURS260AQ

■ Dynamic Characteristics

◆ MURS220AQ

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	$T_j=25^{\circ}\text{C}$	$I_F=1\text{A}$, $di/dt=-50\text{A/us}$ $V_{RM}=30\text{V}$	-	30	-
			$T_j=25^{\circ}\text{C}$	$I_F=2\text{A}$ $di/dt=-200\text{A/us}$ $V_{RM}=100\text{V}$	-	26	-
			$T_j=125^{\circ}\text{C}$		-	32	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}\text{C}$		-	3.4	-
			$T_j=125^{\circ}\text{C}$		-	5.7	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}\text{C}$		-	43	-
			$T_j=125^{\circ}\text{C}$		-	89	-

◆ MURS240AQ

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	$T_j=25^{\circ}\text{C}$	$I_F=1\text{A}$, $di/dt=-50\text{A/us}$ $V_{RM}=30\text{V}$	-	53	-
			$T_j=25^{\circ}\text{C}$	$I_F=2\text{A}$ $di/dt=-200\text{A/us}$ $V_{RM}=200\text{V}$	-	37	-
			$T_j=125^{\circ}\text{C}$		-	58	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}\text{C}$		-	5.2	-
			$T_j=125^{\circ}\text{C}$		-	7.7	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}\text{C}$		-	96.6	-
			$T_j=125^{\circ}\text{C}$		-	219.1	-

◆ MURS260AQ

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	$T_j=25^{\circ}\text{C}$	$I_F=1\text{A}$, $di/dt=-50\text{A/us}$ $V_{RM}=30\text{V}$	-	50	-
			$T_j=25^{\circ}\text{C}$	$I_F=2\text{A}$ $di/dt=-200\text{A/us}$ $V_{RM}=400\text{V}$	-	42	-
			$T_j=125^{\circ}\text{C}$		-	63	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}\text{C}$		-	5.2	-
			$T_j=125^{\circ}\text{C}$		-	7.4	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}\text{C}$		-	106.3	-
			$T_j=125^{\circ}\text{C}$		-	231.7	-

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

PARAMETER	SYMBOL	UNIT	MURS220AQ	MURS240AQ	MURS260AQ
Typical Thermal resistance	$R_{\theta JA}^{(1)}$	$^{\circ}\text{C/W}$	80		
	$R_{\theta JL}^{(1)}$		25		

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Figure.1: I_O - T_L Curve

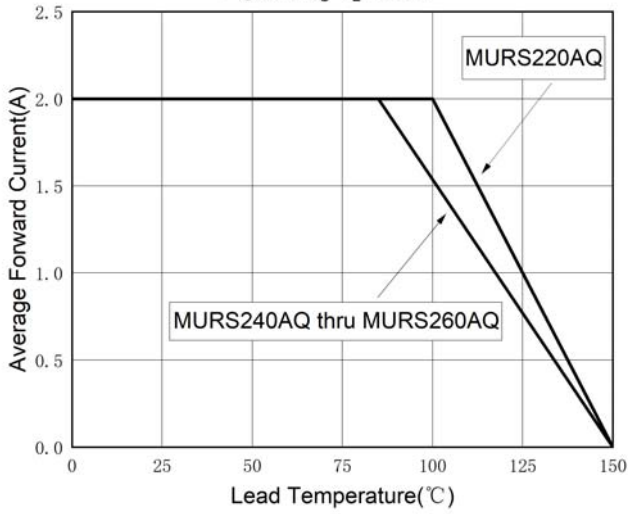


Fig.2: Forward Surge Current Capability

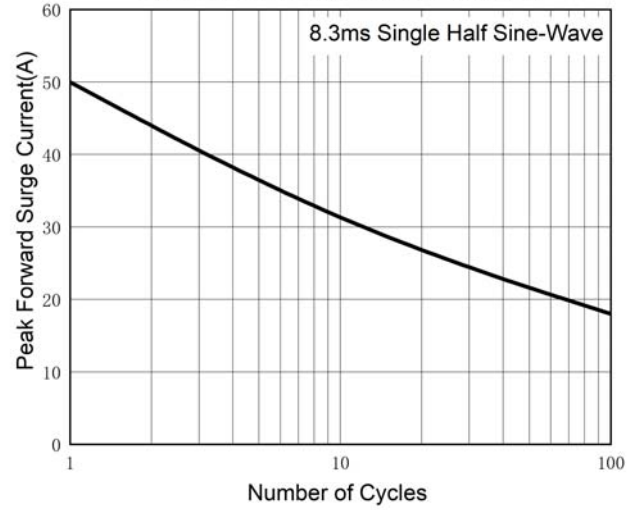


Fig.3: Typical Instantaneous Forward Characteristics

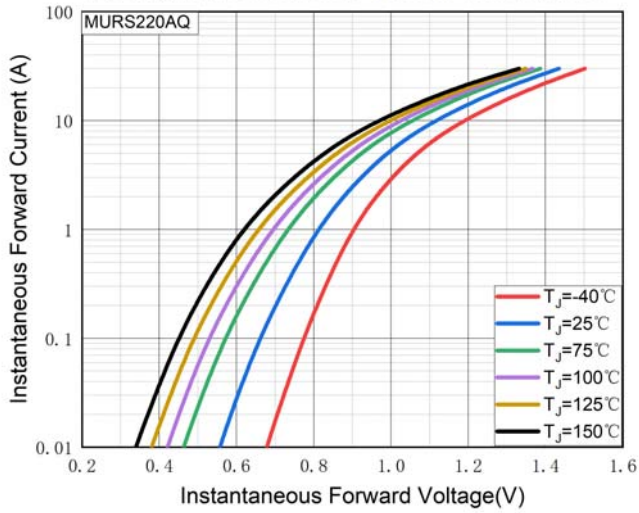


Fig.4: Typical Reverse Leakage Characteristics

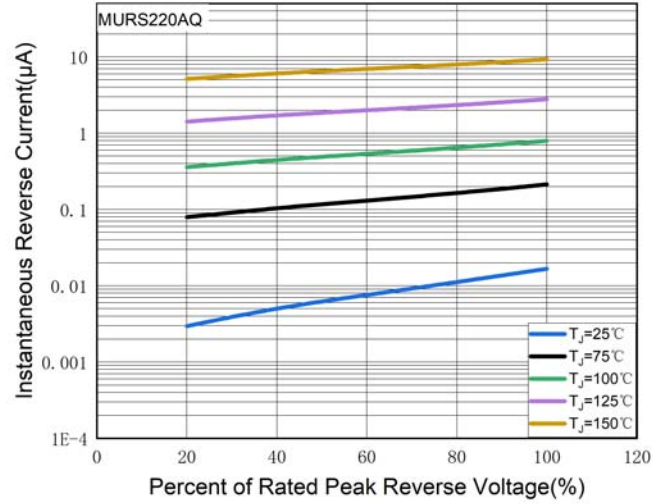


Fig.5: Typical Instantaneous Forward Characteristics

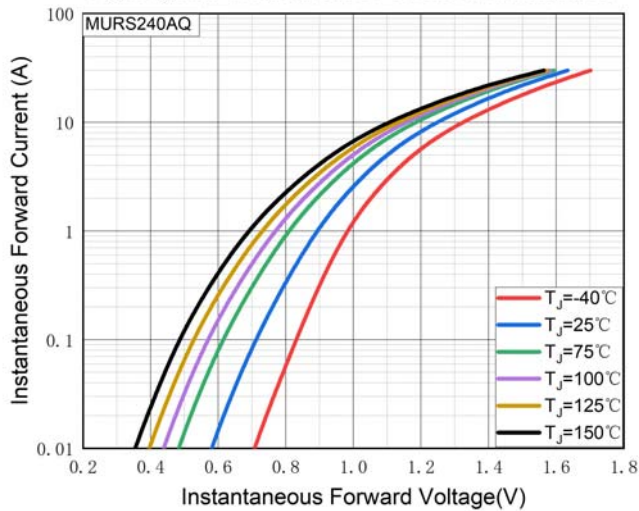
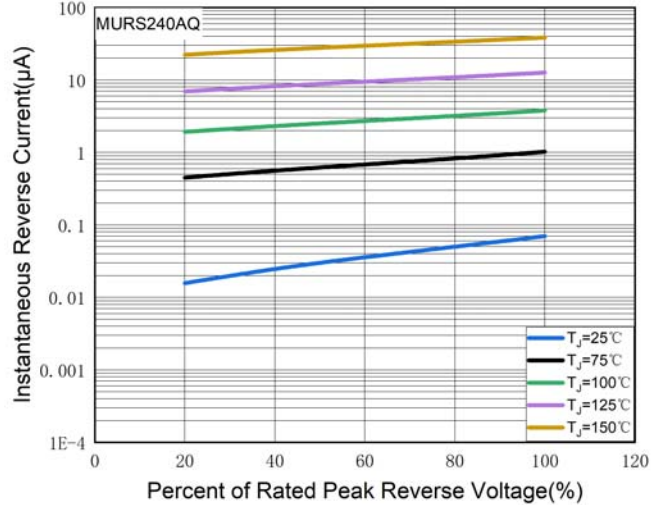


Fig.6: Typical Reverse Leakage Characteristics





MURS220AQ THRU MURS260AQ

Fig.7: Typical Instantaneous Forward Characteristics

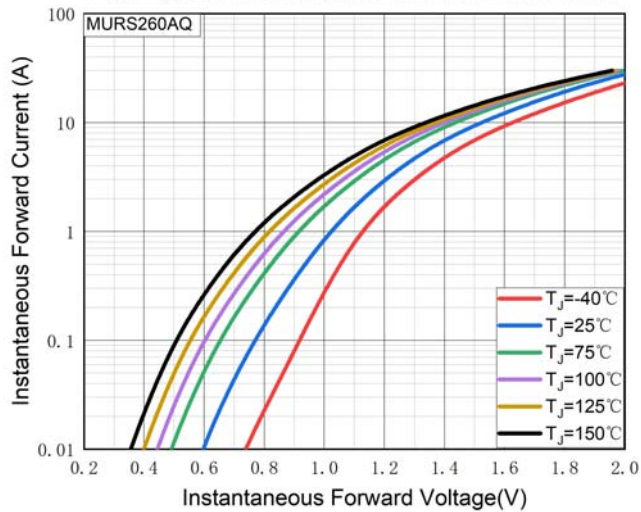


Fig.8: Typical Reverse Leakage Characteristics

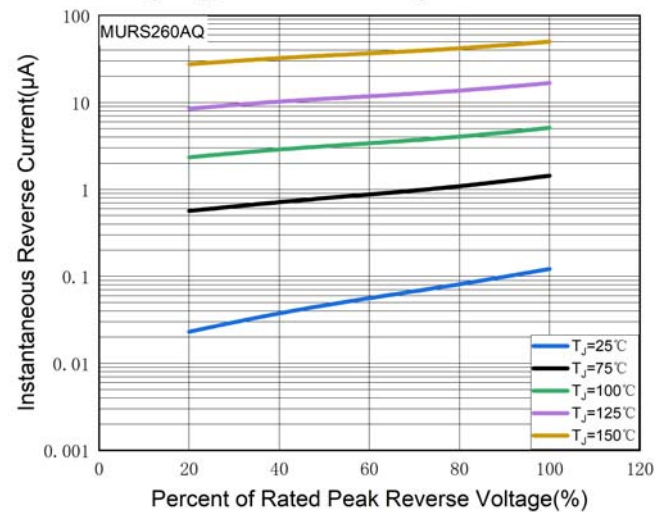
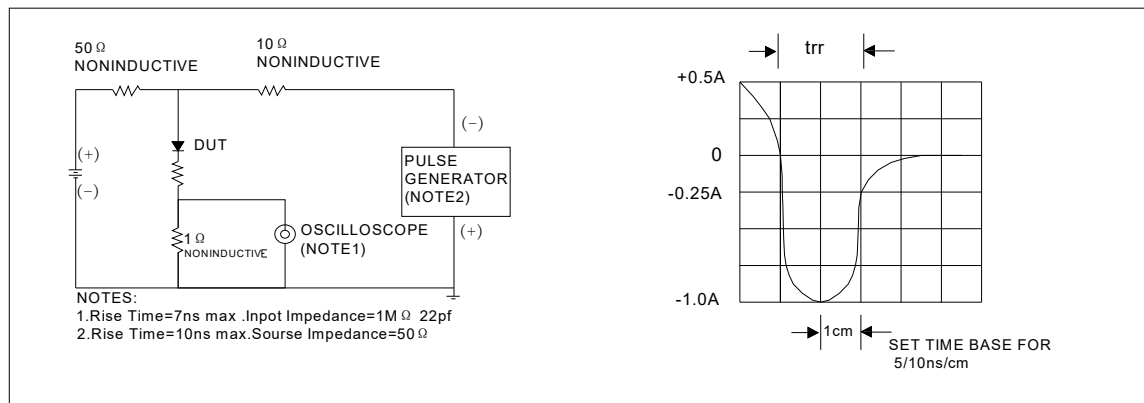


FIG.9: Diagram of circuit and Testing wave form of reverse recovery time



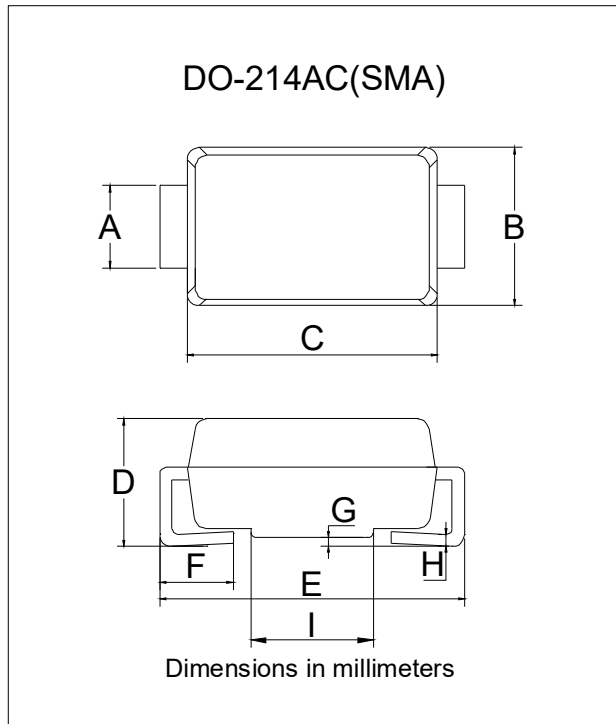
■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURS220AQ-MURS260AQ	F2	Approximate 0.67	7500	120000	13" reel



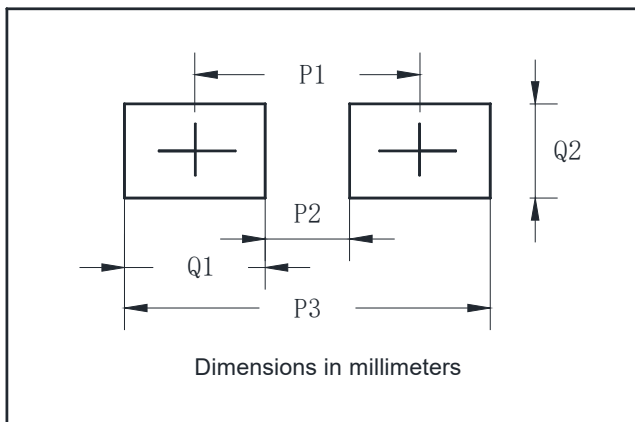
MURS220AQ THRU MURS260AQ

■ Outline Dimensions



DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.00	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.05	0.20
H	0.15	0.31
I	1.7	2.1

■Suggested Pad Layout

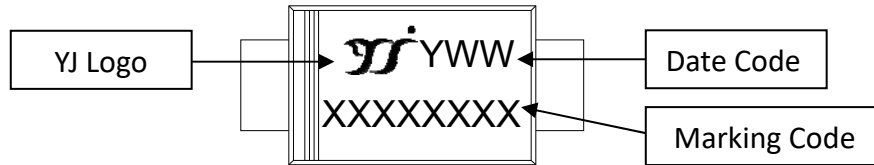


DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
P3	6.50
Q1	2.50
Q2	1.70



MURS220AQ THRU MURS260AQ

■ Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser printing
3. XXXXXXXXX is marking code, like MURS260AQ marking code is MURS260A.
4. Body color: Black
5. YWW is date code, "Y" is year. "WW" is week.

For instance:

The 17th week of 2025, date code is 517

The 17th week of 2026, date code is 617



MURS220AQ THRU MURS260AQ

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.