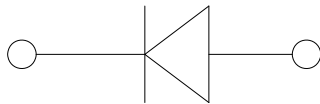
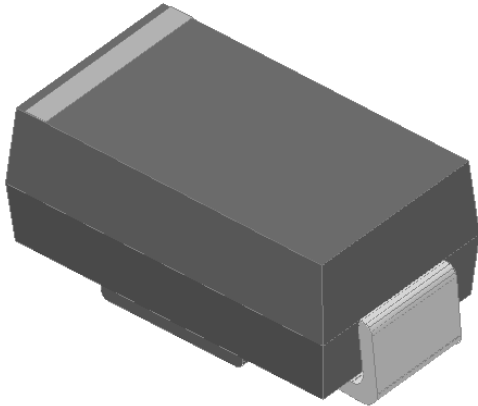


Surface Mount Super Fast Recovery Rectifier



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-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	MURSA260A
Device marking code			A260A
Maximum Repetitive Peak Reverse Voltage	VRRM	V	600
Maximum RMS Voltage	VRMS	V	420
Maximum DC blocking Voltage	VDC	V	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
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			100
Current squared time @1ms≤t≤8.3ms Tj=25°C	I²t	A²s	10.375
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	MURSA260A
Maximum instantaneous forward voltage	VF	V	IFM=2.0A	1.28
Maximum reverse recovery time	tr	ns	IF=0.5A, IR=1.0A, IR=0.25A	50
Maximum DC reverse current at rated DC blocking voltage	IR	μA	Tj=25°C	5.0
			Tj=125°C	50
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	15



MURSA260A

■ Dynamic Characteristics

◆ MURSA260A

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	-
			$T_j=25^{\circ}\text{C}$	$I_F=2\text{A}$ $di/dt=-200\text{A/us}$ $V_{RM}=400\text{V}$	-	40	-
			$T_j=125^{\circ}\text{C}$		-	66	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}\text{C}$		-	5.0	-
			$T_j=125^{\circ}\text{C}$		-	7.1	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}\text{C}$		-	98	-
			$T_j=125^{\circ}\text{C}$		-	232	-
Non-repetitive avalanche energy	E_{AS}	mJ	$T_j=25^{\circ}\text{C}$	$I_R=1.9\text{A}$, $L=15\text{mH}$	27	-	-

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

PARAMETER	SYMBOL	UNIT	MURSA260A
Typical Thermal resistance	$R_{\theta J-A}^{(1)}$	$^{\circ}\text{C/W}$	65
	$R_{\theta J-L}^{(1)}$		25
	$R_{\theta J-C}^{(1)}$		20

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

■ Characteristics (Typical)

FIG.1: Io-TL Curve

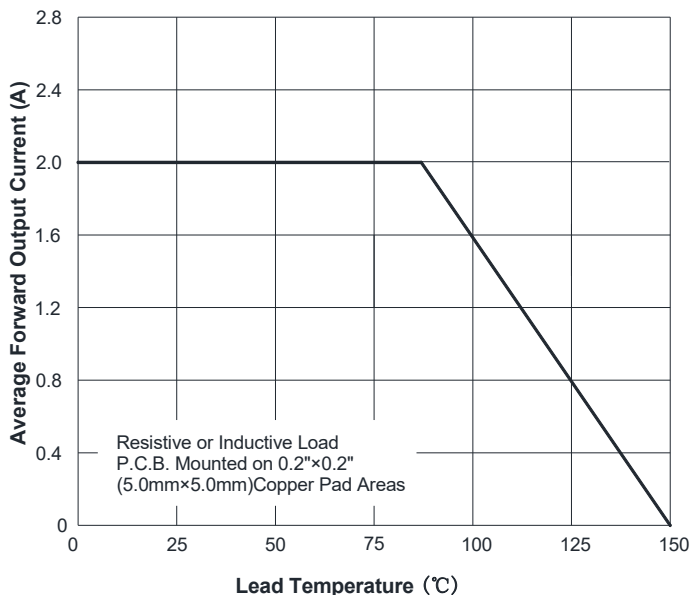
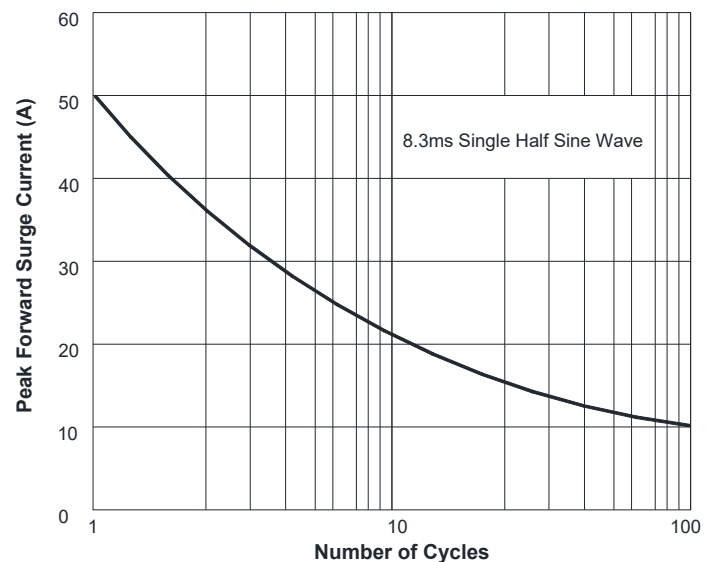


FIG.2: Forward Surge Current Capability





MURSA260A

FIG.3: Typical Forward Voltage

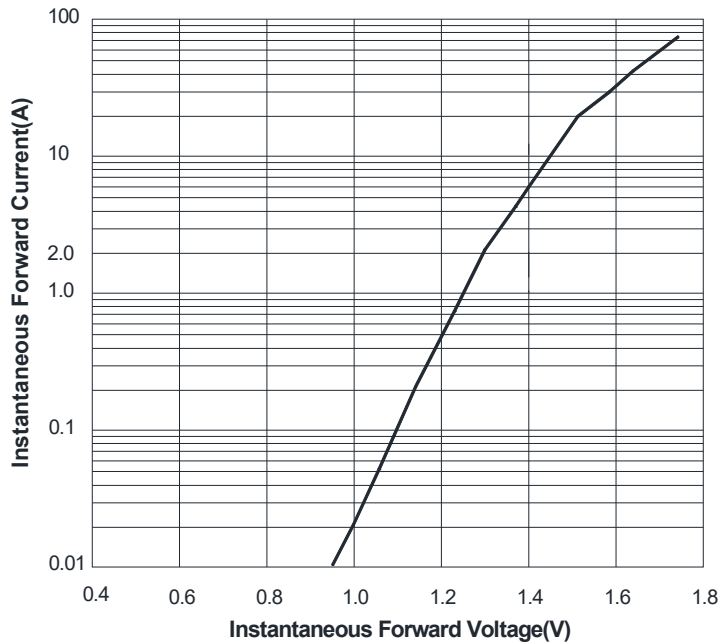


FIG.4: Typical Reverse Characteristics

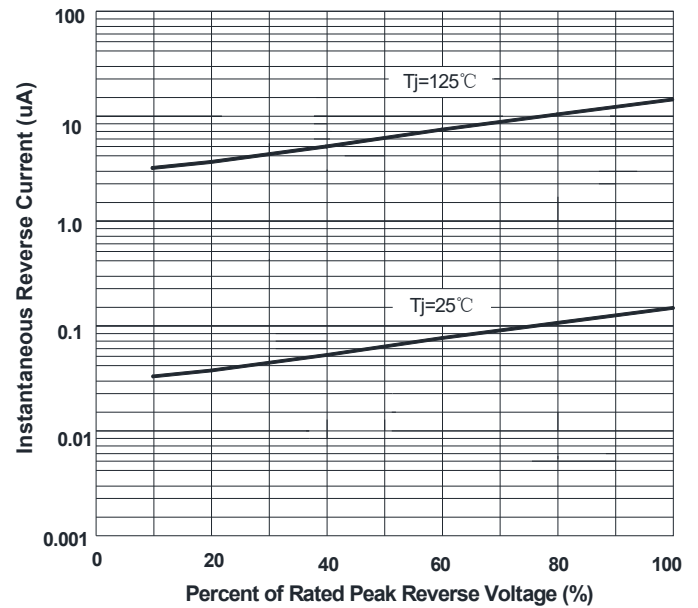
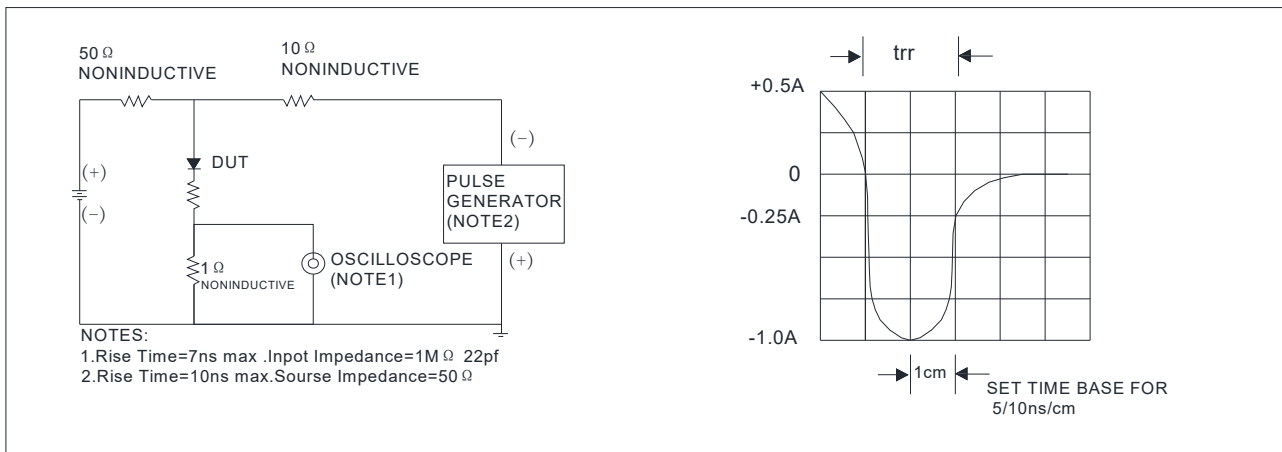


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

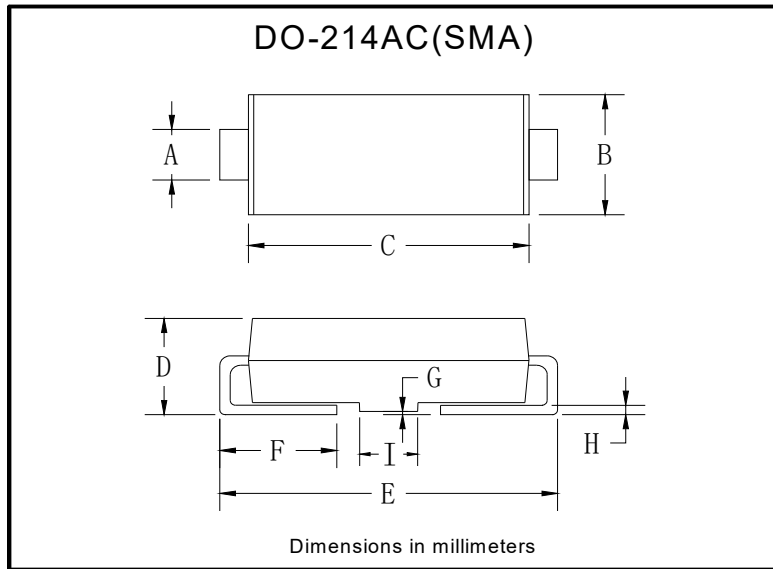


Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURSA260A	F1	Approximate 0.059	5000	/	80000	13" reel
MURSA260A	F2	Approximate 0.059	7500	/	120000	13" reel
MURSA260A	F3	Approximate 0.059	7500	/	60000	13" reel
MURSA260A	F4	Approximate 0.059	1800	14400	57600	7" reel
MURSA260A	F5	Approximate 0.059	2000	16000	64000	7" reel
MURSA260A	F6	Approximate 0.059	5000	/	100000	13" reel

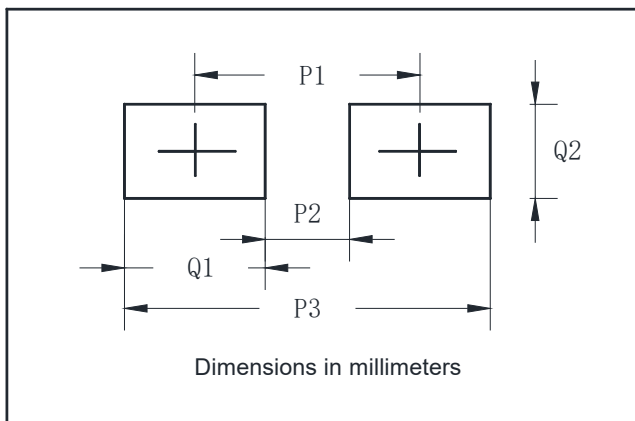


■ Outline Dimensions



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	1.70	2.10

■ Suggested Pad Layout



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



MURSA260A

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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.

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