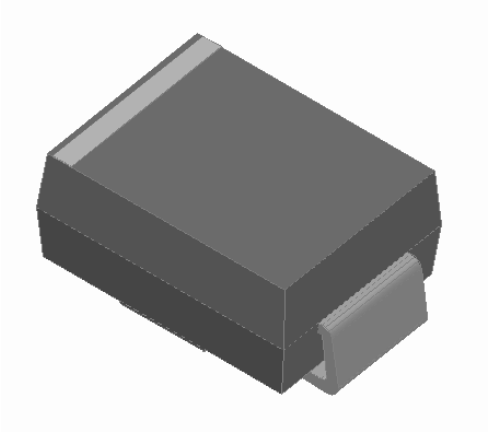
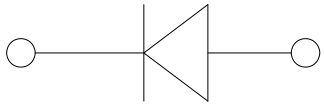
Surface Mount Super Fast Recovery Rectifier





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 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MURS460B
Device marking code			MURS460B
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	4.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25	I_{FSM}	A	100
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25			200
Current squared time @1ms≤t≤8.3ms Tj=25	I^2t	A^2s	41.5
Storage temperature	Tstg		-55 ~ +150
Junction temperature	Tj		-55 ~ +150

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MURS460B
Maximum instantaneous forward voltage	V_F	V	I_{FM}=4.0A	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	Tj =25	5
			Tj =125	50
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	50

■Dynamic Characteristics

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	-	49	-
			Tj=25	I_F=4A di/dt=-200A/us V_{RM}=400V	-	50	-
			Tj=125		-	77	-
Peak recovery current	I_{RRM}	A	Tj=25		-	6.6	-
			Tj=125		-	10.0	-
Reverse recovery charge	Qrr	nC	Tj=25		-	167.8	-
			Tj=125		-	382.1	-
Non-repetitive avalanche energy	E_{AS}	mJ	Tj=25	I_R=0.8 A L=15 mH	4.8	-	-

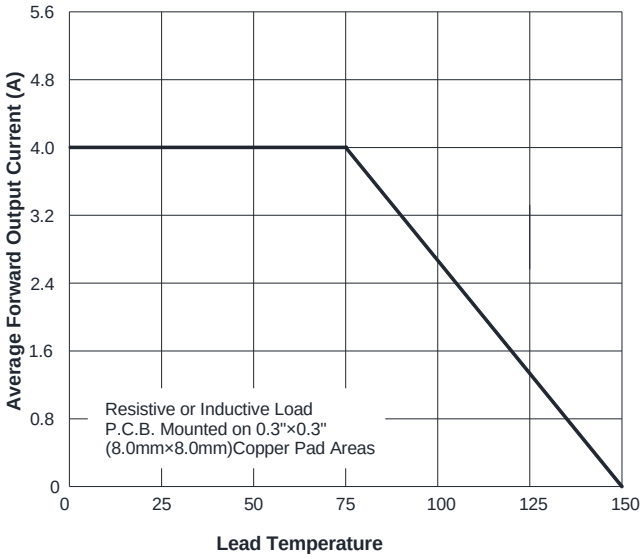
■Thermal Characteristics T_a=25 Unless otherwise specified

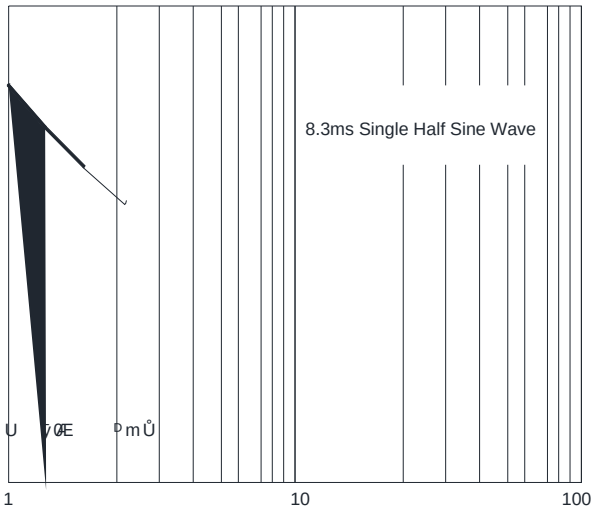
PARAMETER	SYMBOL	UNIT	MURS460B
Typical Thermal resistance	$R_{\theta J-A}$(1)	/W	60
	$R_{\theta J-L}$(1)		20
	$R_{\theta J-C}$(1)		18

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: Io-TL Curve





MURS460B

Disclaimer

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