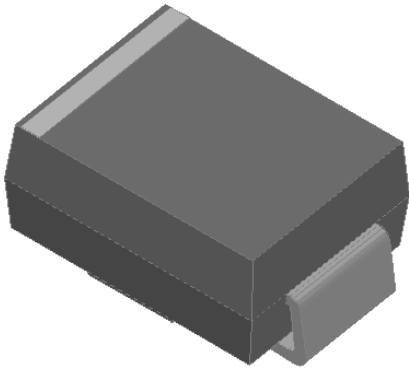


Surface Mount Super Fast Recovery Rectifier

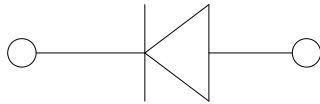


Features

- 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:

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	IFSM	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 ² t	A ² s	41.5
U		- š	O -55 ~ +150



MURS460B

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	$T_j=25$	5
			$T_j=125$	50
Typical junction capacitance	C_j	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	$T_j=25$	$I_F=1A$ $di/dt=-50A/\mu s$ $V_{RM}=30V$	-	49	-
			$T_j=25$		-	50	-
			$T_j=125$		-	77	-
Peak recovery current	I_{RRM}	A	$T_j=25$	$I_F=4A$ $di/dt=-200A/\mu s$ $V_{RM}=400V$	-	6.6	-
			$T_j=125$		-	10.0	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25$		-	167.8	-
			$T_j=125$		-	382.1	-
Non-repetitive avalanche energy	E_{AS}	mJ	$T_j=25$	$I_R=0.8 A$ $L=15 mH$	4.8	-	-

Thermal Characteristics $T_a=25$ Unless otherwise specified

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

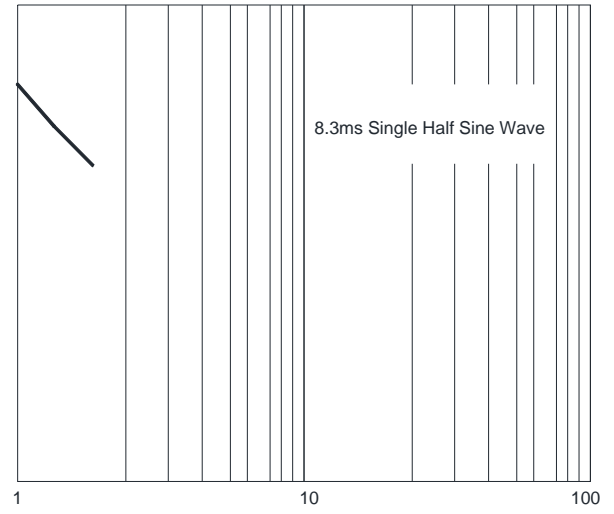
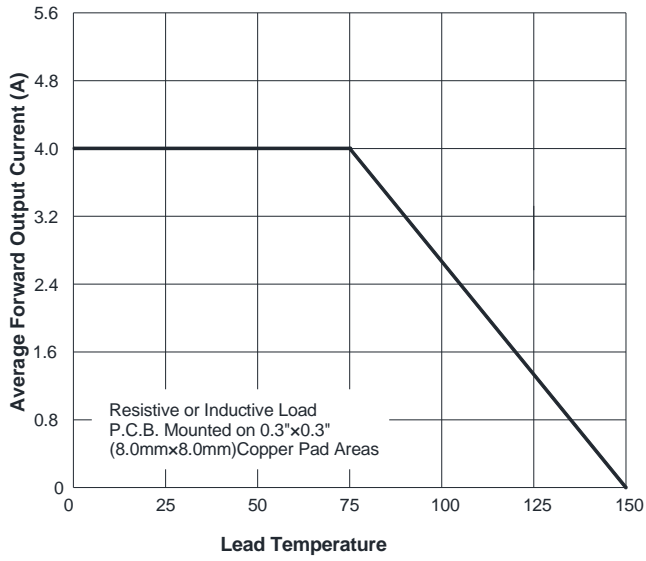
Note:

(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 ar



Characteristics (Typical)

FIG.1: I_o-T_L Curve



MURS460B



MURS460B

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