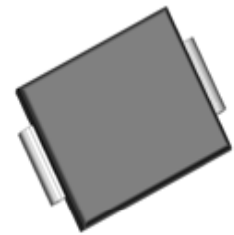


Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power as a free wheeling diode
- Ultrafast recovery time for high efficiency
- For surface mounted applications
- Class passivated junction
- High temperature soldering guaranteed: 260°C/10 seconds at terminals



DO-214AB (SMC)

Mechanical Data

- Case: JEDEC DO-214AB (SMC) molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	MURS440	MURS460	UNIT
Maximum repetitive peak reverse voltage	VRRM	400	600	V
Working peak reverse voltage	VRWM	400	600	V
Maximum DC blocking voltage	VDC	400	600	V
Maximum average forward rectified current (See Fig.1)	IF(AV)	4.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	125		A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 175		°C

ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	MURS440	MURS460	UNIT
Maximum instantaneous forward voltage	4A	V _F	1.28		Volts
Maximum DC reverse current at rated DC blocking voltage	TJ=25°C	I _R	10		μA
	TJ=150°C		250		
Maxinmum reverse recovery time at	IF=0.5A,IR=1.0A,Irr=0.25A	t _{rr}	50		nS
Maxinmum reverse recovery time at	IF=1.0A,di/dt=50A/us VR=30V,Irr=10%IRM	t _{rr}	75		nS
Maxinmum reverse recovery time at	IF=1.0A,di/dt=100A/us recovery to 1.0V	t _{rr}	50		nS
Typical thermal resistance ¹⁾	juntion to amb	R _{θJA}	34		°C/W
	juntion to case	R _{θJC}	17		
	juntion to lead	R _{θJL}	10		
Typical junction capacitance	4.0 V, 1 MHz	C _J	70		pF

Note:1), The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 30×30mm copper pads

RATINGS AND CHARACTERISTICS CURVES

Fig. 1 – Forward Current Derating Curve

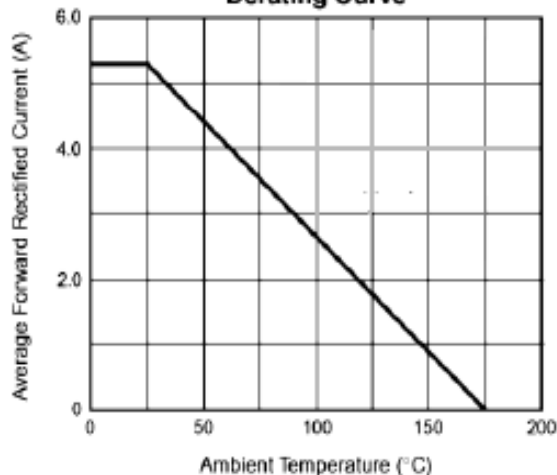


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

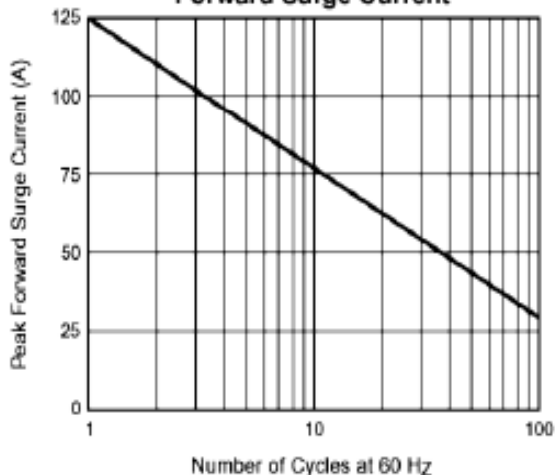


Fig. 3 – MURS460 Typical Instantaneous Forward Characteristics

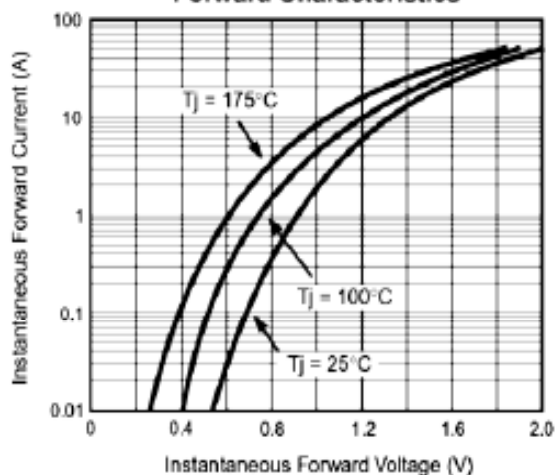


Fig. 4 – MURS460 Typical Reverse Characteristics

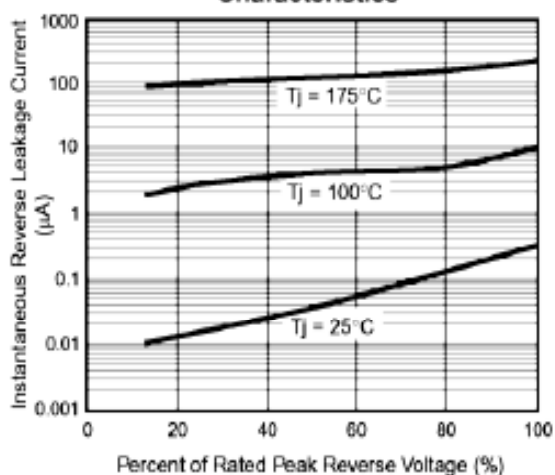
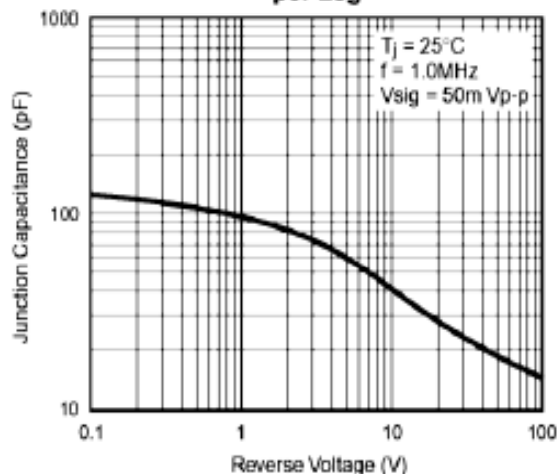


Fig. 5 – Typical Junction Capacitance per Leg



PACKAGE OUTLINE DIMENSIONS

