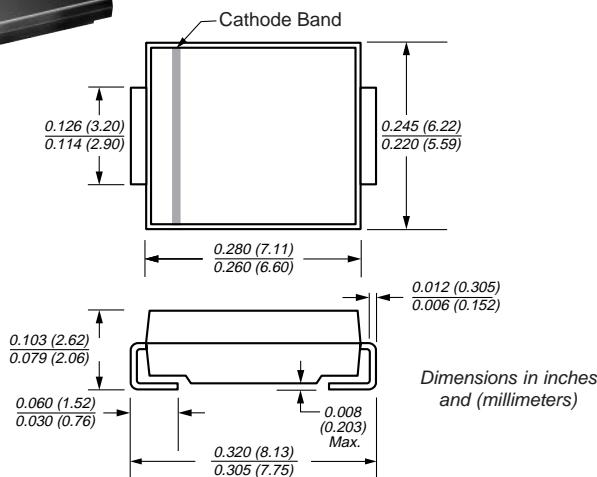



DO-214AB (SMC)


Mechanical Data

Case: JEDEC DO-214AB molded plastic body over passivated chip

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

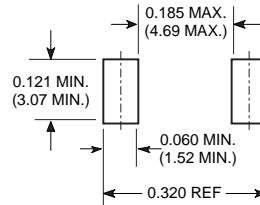
Polarity: Color band denotes cathode end

Weight: 0.007oz., 0.21g

Ultrafast Rectifiers

Reverse Voltage 400 to 600V
Forward Current 3.0A
Reverse Recovery Time 50ns

Mounting Pad Layout



Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- Glass passivated junction
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MURS340	MURS360	Unit
Device Marking Codes		MG	MJ	
Maximum repetitive peak reverse voltage	V _{RRM}	400	600	V
Working peak reverse voltage	V _{RWM}	400	600	V
Maximum DC blocking voltage	V _{DC}	400	600	V
Maximum average forward rectified current at: T _L = 130°C (See figure 1) T _L = 115°C	I _{F(AV)}	3.0 4.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	125		A
Typical thermal resistance junction to ambient	R _{θJL}	11		°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175°C		°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage ⁽¹⁾ I _F = 3.0A, T _J = 25°C I _F = 4.0A, T _J = 25°C I _F = 3.0A, T _J = 150°C	V _F	1.25 1.28 1.05	V
Maximum instantaneous reverse current at rated DC blocking voltage ⁽¹⁾ T _J = 25°C T _J = 150°C	I _R	10 250	µA
Maximum reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	50	ns
Maximum reverse recovery time at, I _F =1.0A, dI/dt=50A/µs, V _R =30V, I _{rr} =10% I _{RM}	t _{rr}	75	ns
Maximum forward recovery time I _F =1.0A, dI/dt=100A/µs, Rec. to 1.0V	t _f	25	ns

Note: (1) Pulse test: t_p = 300µs, duty cycle ≤ 2%

MURS340 thru MURS360



Vishay Semiconductors
formerly General Semiconductor

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

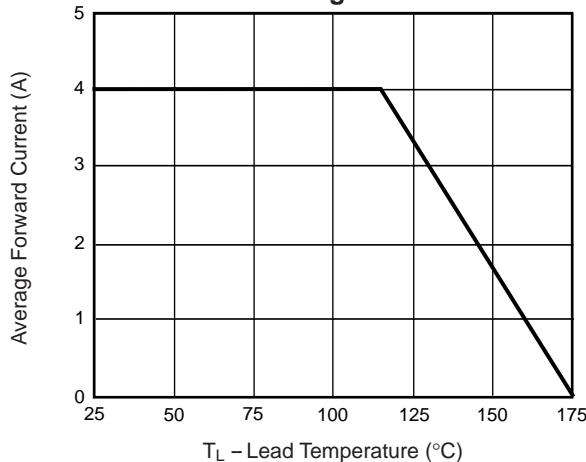


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

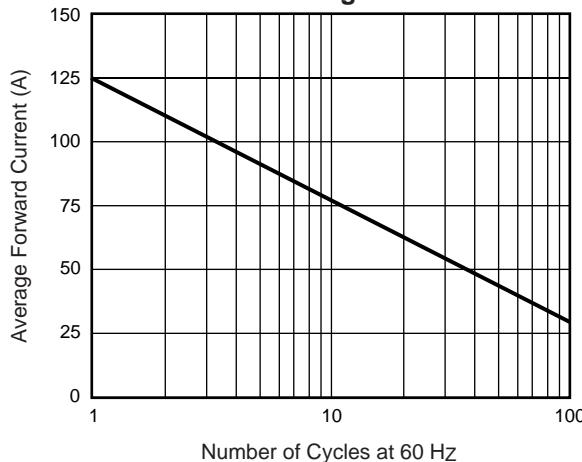


Fig. 3 – Typical Instantaneous Forward Characteristics

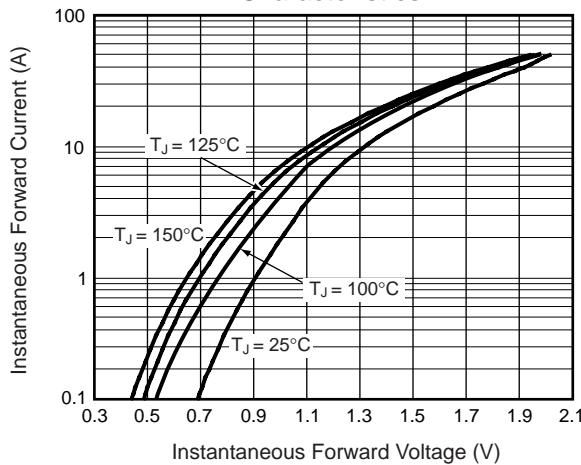


Fig. 4 – Typical Reverse Characteristics

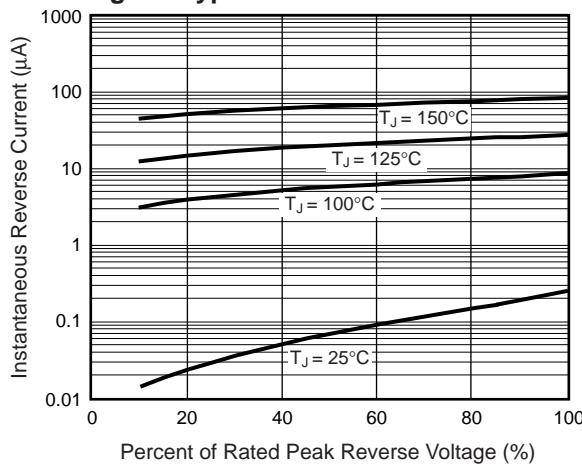


Fig. 5 – Typical Junction Capacitance

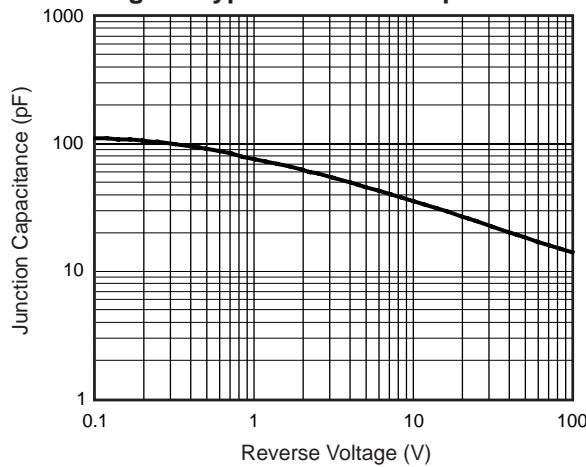


Fig. 6 – Typical Reverse Switching Characteristics

