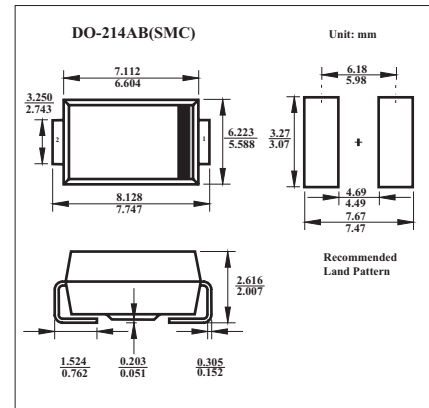


Ultrafast Rectifiers

MURS340

■ 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



■ Maximum Ratings & Thermal Characteristics Ratings at 25°C

Parameter	Symbol	Rating	Unit
Peak repetitive reverse voltage	VRRM		
Working peak reverse voltage	VRWM	400	V
DC blocking voltage	VR		
Average rectified forward current			
$T_L = 130^\circ\text{C}$	$I_{F(AV)}$	3	A
$T_L = 115^\circ\text{C}$		4	A
Non-repetitive peak surge current	IFSM	125	A
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175	°C
Typical thermal resistance junction to ambient	$R_{\theta JL}$	11	°C/W

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Rating	Unit
Instantaneous forward voltage *	V _F	I _F =3.0 A, T _J = 25°C	1.20	V
		I _F =4.0 A, T _J = 25°C	1.25	
		I _F =3.0 A, T _J = 150°C	1.05	
Instantaneous reverse current *	I _R	Rated dc Voltage, T _J = 25°C	10	μ A
		Rated dc Voltage, T _J = 150°C	250	
Maximum reverse recovery time	t _{rr}	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	50	ns
		I _F =1.0A, di/dt=50A/μ s, V _R =30V, I _{rr} =10% I _{RM}	75	ns
		I _F =1.0A, di/dt=100A/μ s, Rec.to 1.0V	25	ns

* Pulse test: pulse width = 300 μ s, duty cycle ≤ 2.0%.

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■ Ratings and Characteristic Curves (TA=25°C Unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

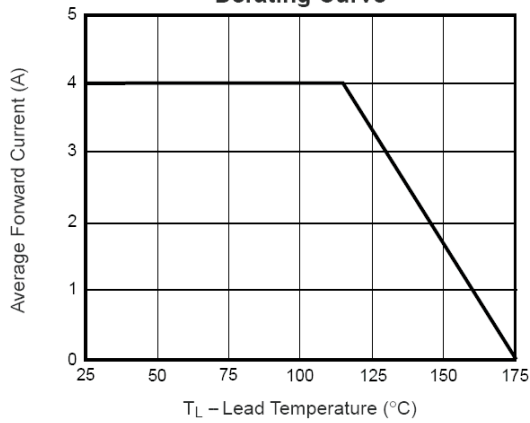


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

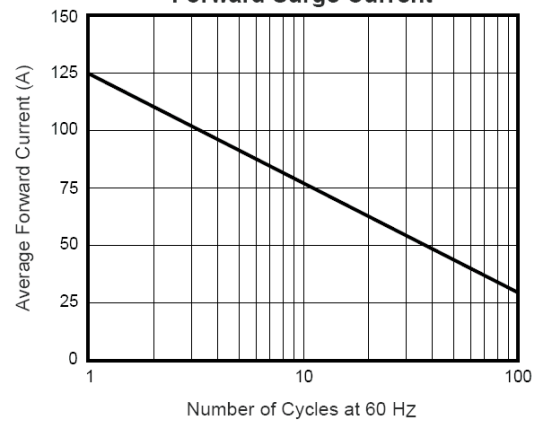


Fig. 3 – Typical Instantaneous Forward Characteristics

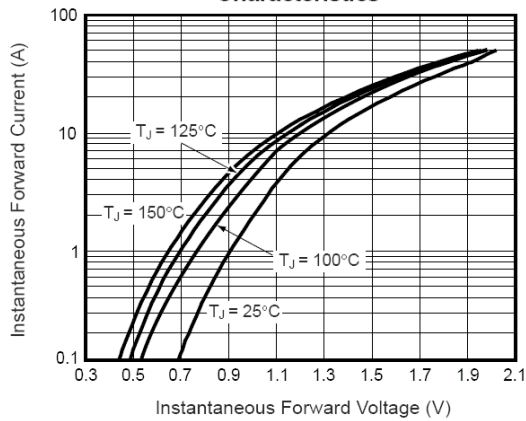


Fig. 4 – Typical Reverse Characteristics

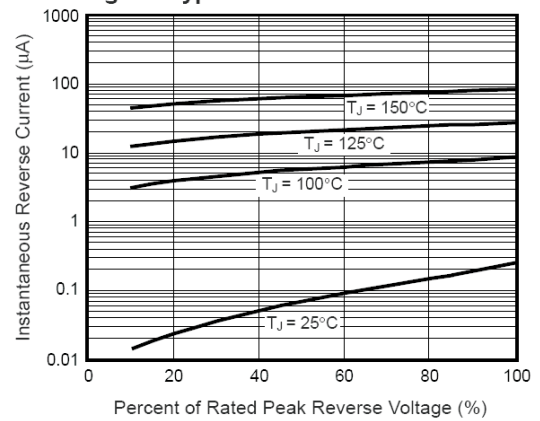


Fig. 5 – Typical Junction Capacitance

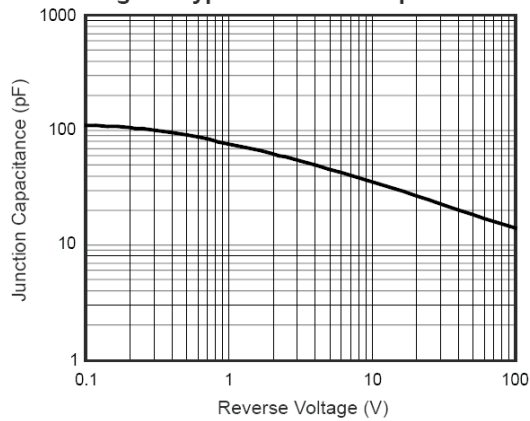


Fig. 6 – Typical Reverse Switching Characteristics

