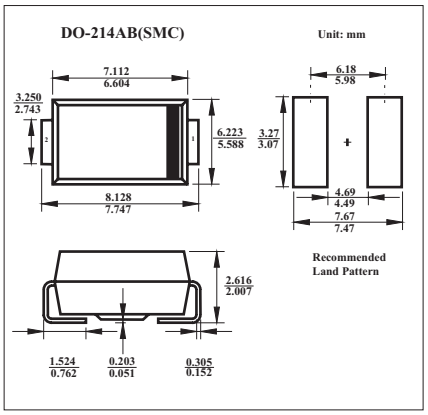
Ultrafast Rectifiers
MURS340

■ 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℃

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

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Rating	Unit
Instantaneous forward voltage *	V_F	I_F =3.0 A, T_J = 25℃	1.20	V
		I_F =4.0 A, T_J = 25℃	1.25	
		I_F =3.0 A, T_J = 150℃	1.05	
Instantaneous reverse current *	I_R	Rated dc Voltage, T_J = 25℃	10	μA
		Rated dc Voltage, T_J = 150℃	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/μs,V_R=30V,I_{rr}=10% I_{RM}	75	ns
		I_F=1.0A, di/dt=100A/μs,Rec.to 1.0V	25	ns

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

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

Fig. 1 – Forward Current Derating Curve

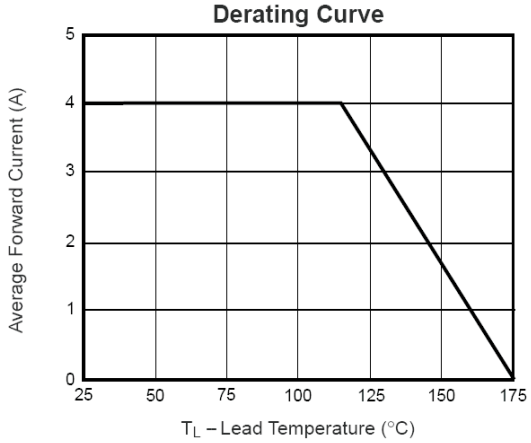

Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

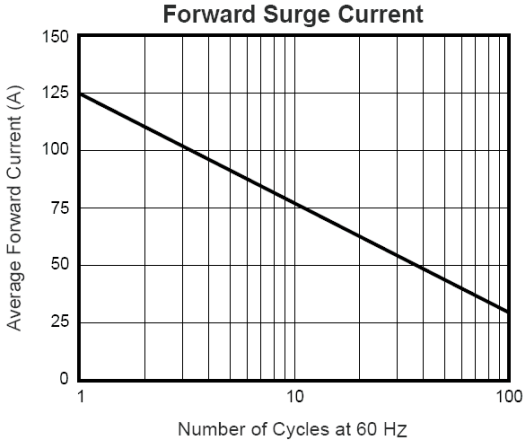

Fig. 3 – Typical Instantaneous Forward Characteristics

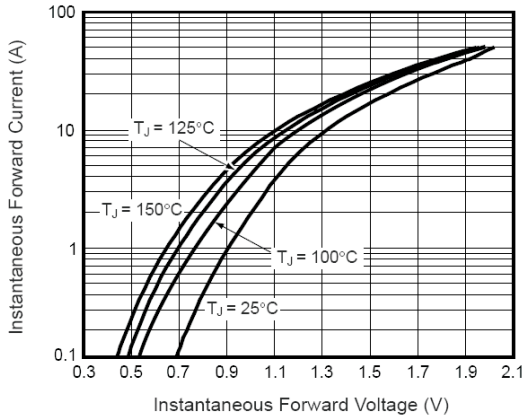

Fig. 4 – Typical Reverse Characteristics

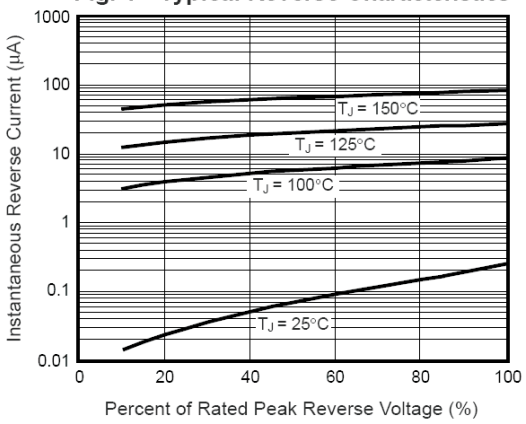

Fig. 5 – Typical Junction Capacitance

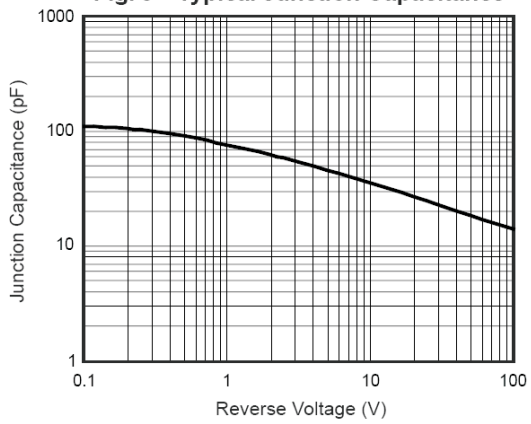

Fig. 6 – Typical Reverse Switching Characteristics