

Features

- Glass passivated chip junction
- Low forward voltage drop
- Ultra-fast recovery time, high efficiency
- Moisture sensitivity: level 1, per J-STD-020



Package: DO-214AB (SMC)

Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	GSMURS440	GSMURS460	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	400	600	V
Maximum RMS Voltage	V _{RMS}	280	420	V
Maximum DC Blocking Voltage	V _{DC}	400	600	V
Maximum Average Forward Rectified Current (See Figure.1)	I _{F(AV)}	4		A
Peak Forward Surge Current (8.3ms Single Half Sine-Wave Superimposed On Rated Load)	I _{FSM}	80		A
Typical Thermal Resistance ¹	Junction-Ambient	R _{θJA}	45	°C/W
	Junction-Case	R _{θJC}	8.5	
Operating Junction Temperature Range	T _J	-55 to + 150		°C
Storage Temperature Range	T _{STG}	-55 to + 150		

Note:

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

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	GSMURS440	GSMURS460	Unit
Maximum Instantaneous Forward Voltage	V _F	I _F =4A, T _J =25°C	1.28		V
		I _F =4A, T _J =150°C	1.05		
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _J =25°C	10		μA
		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
Junction Capacitance	C _J	4.0V, 1MHz	65		pF

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

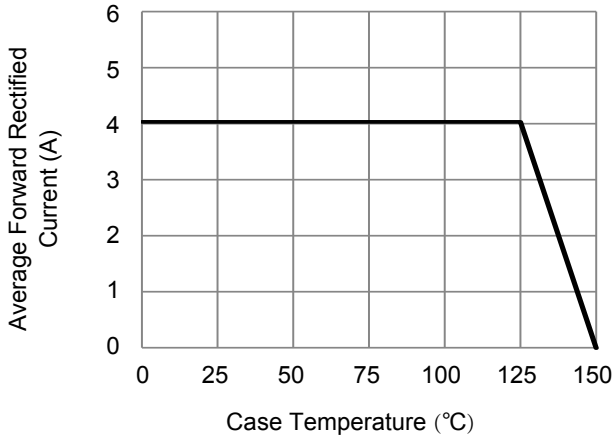


Figure 1. Forward Current Derating Curve

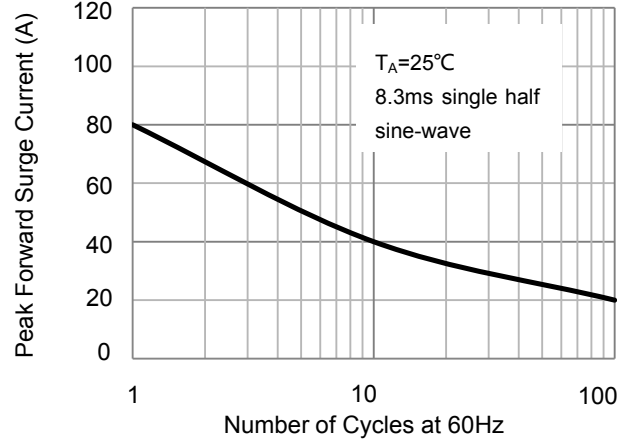


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

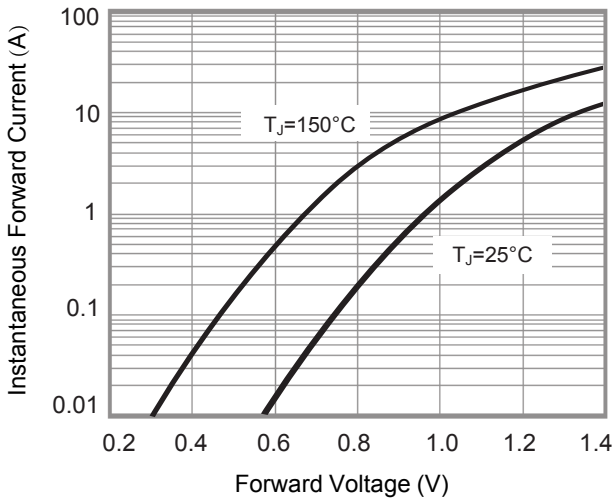


Figure 3. Typical Instantaneous Forward Characteristics

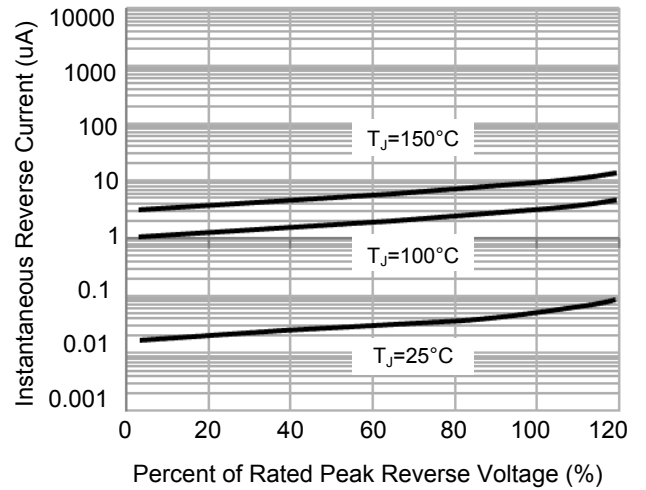


Figure 4. Typical Reverse Leakage Characteristics

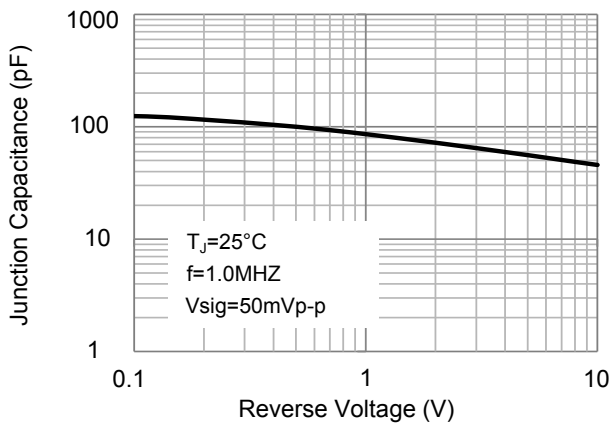
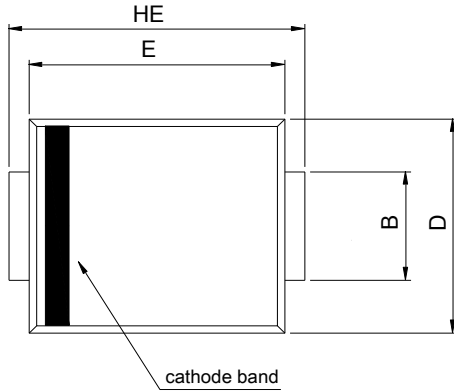


Figure 5. Typical Junction Capacitance

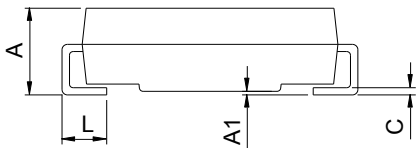
GSMURS440/GSMURS460

Ultrafast Recovery Rectifiers
 Reverse Voltage 400V-600V Forward Current 4.0 A

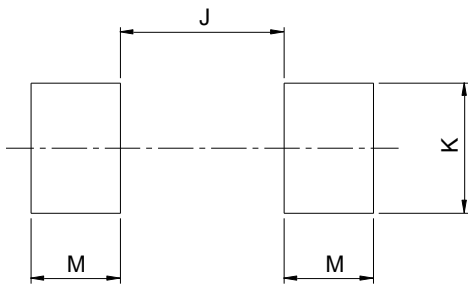
Package Outline Dimensions DO-214AB (SMC)



SMC (DO-214AB)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.00	2.62	0.079	0.103
A1	0.00	0.20	0.000	0.008
B	2.90	3.20	0.114	0.126
C	0.15	0.31	0.006	0.012
D	5.58	6.22	0.220	0.245
E	6.60	7.15	0.260	0.281
HE	7.75	8.15	0.305	0.321
L	0.76	1.60	0.030	0.063



Recommended Pad Layout



SMC Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	4.60	-	0.181
K	3.20	-	0.126	-
M	2.00	-	0.079	-