GOOD-ARK SEMICONDUCTOR

GSMBRTL20120

Schottky Barrier Rectifier
Reverse Voltage 120V Forward Current 20A

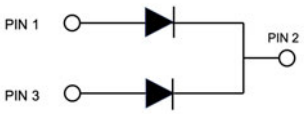
Features

- Trench MOS Schottky technology
- Low forward voltage drop, low power losses
- High efficiency operation
- RoHS compliant

TO-262L

Mechanical Data

- Case: TO-262L
- Case material: Epoxy meets UL 94V-0 flammability rating
- Polarity: As marked on case body



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	120	V
Maximum Average Forward Rectified Current Per Device	$I_{F(AV)}$	20	A
Maximum Average Forward Rectified Current Per Diode		10	
Peak Forward Surge Current (8.3ms Single Half Sine - Wave Superimposed on Rated Load Per Diode)	I_{FSM}	120	A
Operating Junction Temperature Range	T_J	-55 to + 150	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C

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

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Instantaneous Forward Voltage Per Diode	I_F=5A, T_A=25°C	V_F	0.65	-	V
	I_F=10A, T_A=25°C		0.80	0.87	
	I_F=5A, T_A=125°C		0.55	-	
	I_F=10A, T_A=125°C		0.62	0.70	
Reverse Current Per Diode	V_R=V_{RRM}, T_A=25°C	I_R	5	100	uA
	V_R=V_{RRM}, T_A=125°C		2	15	mA
Thermal Resistance Per Device, Junction to Ambient		$R_{\theta JA}$	57		°C/W
Thermal Resistance Per Device, Junction to Case		$R_{\theta JC}$	2		°C/W

Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)

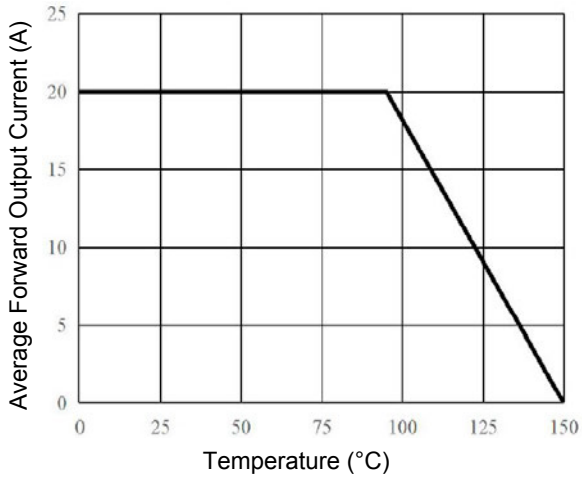


Figure 1. Forward Output Current Derating Curve

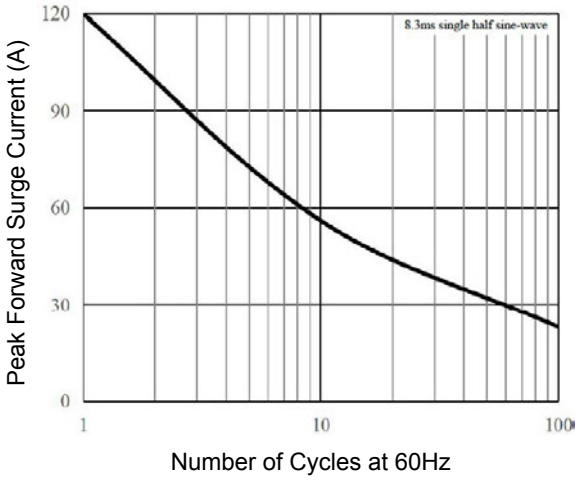


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

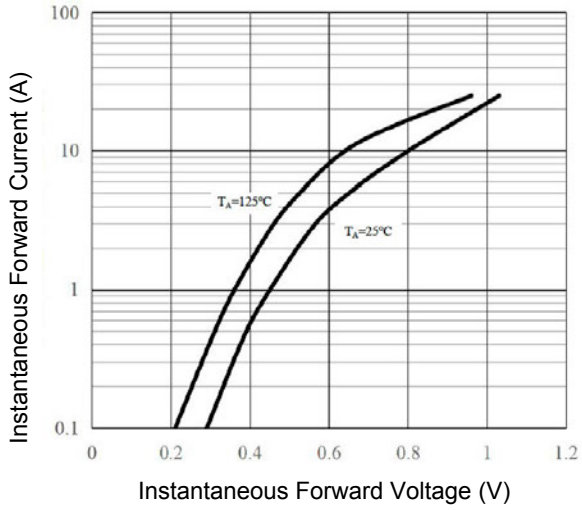


Figure 3. Typical Forward Characteristics

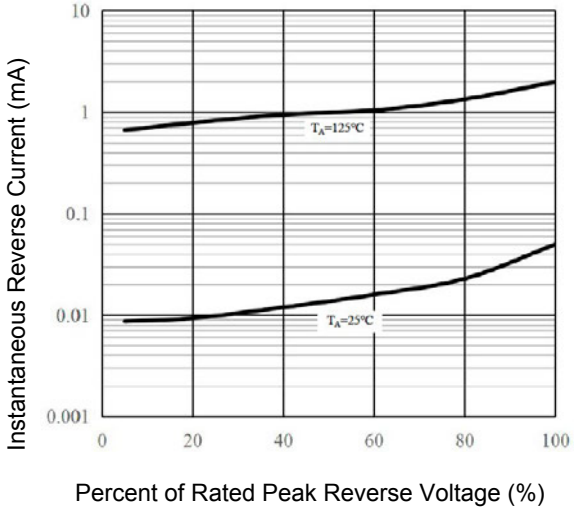


Figure 4. Typical Reverse Characteristics

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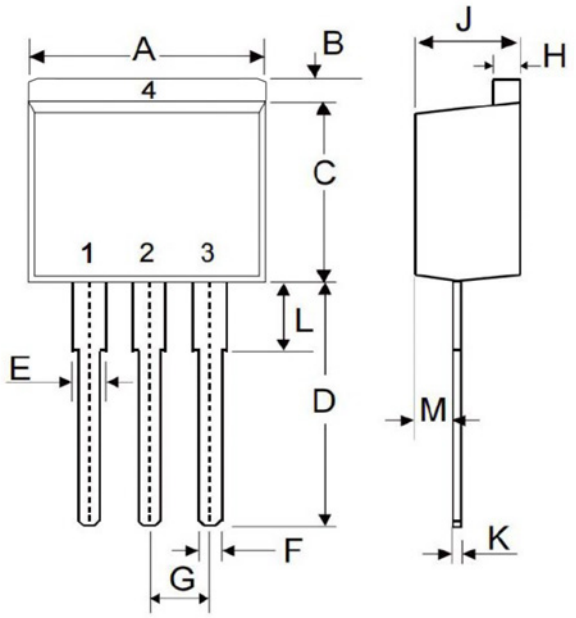
Package Outline Dimensions (TO-262L)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	9.900	10.400	0.390	0.409
B	1.270		0.049	
C	8.500	8.900	0.335	0.350
D	13.300	13.800	0.524	0.543
E	1.120	1.420	0.044	0.056
F	0.660	0.960	0.026	0.038
G	2.540		0.100	
H	1.120	1.420	0.044	0.056
J	4.320	4.820	0.170	0.190
K	0.280	0.520	0.011	0.200
L	4.460	4.860	0.176	0.191
M	1.430	1.630	0.056	0.064