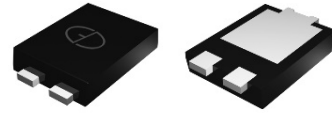


10A,60V Schottky Barrier Rectifier

Features

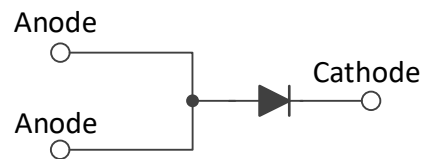
- Low leakage current
- Low forward voltage, low power loss
- High surge current
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21
- AEC-Q101 qualified available



eSGC (TO-277)

Applications

- SMPS
- Adapter
- Server Power



Mechanical Data

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec

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

Parameter	Symbol	AWSS10H6	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	60	V
Maximum RMS voltage	V _{RMS}	42	V
Maximum DC blocking voltage	V _{DC}	60	V
Maximum average forward	I _{F(AV)}	10	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	200	A
Operating junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Electrical Specifications (T _A =25°C unless otherwise noted)					
Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage (Note1)	V _F	I _F =10A, T _J =25°C	0.66	0.71	V
		I _F =10A, T _J =125°C	-	0.66	
Reverse leakage current @V _R (Note2)	I _R	T _J =25°C	-	20	uA
		T _J =100°C	-	5	mA

Thermal-Mechanical Specifications (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Case	R _{θJC}	15	°C /W
Thermal Resistance, Junction to Ambient	R _{θJA}	40	°C /W

Note:

1. Pulse test with PW=0.3ms, duty cycle=2%
2. Pulse test with PW=30ms

Ratings and Characteristics Curves

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

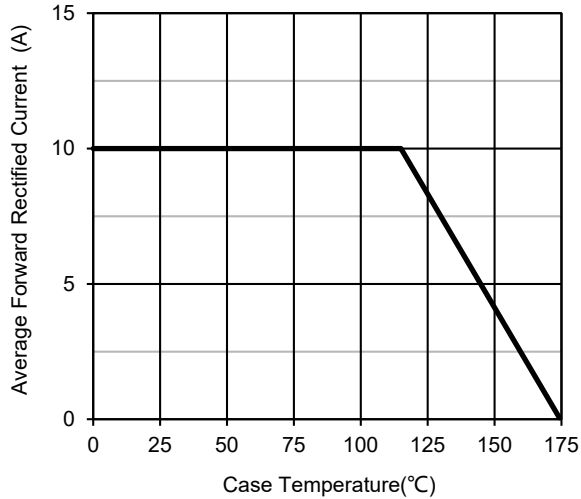


Fig.1 – Forward Current Derating Curve

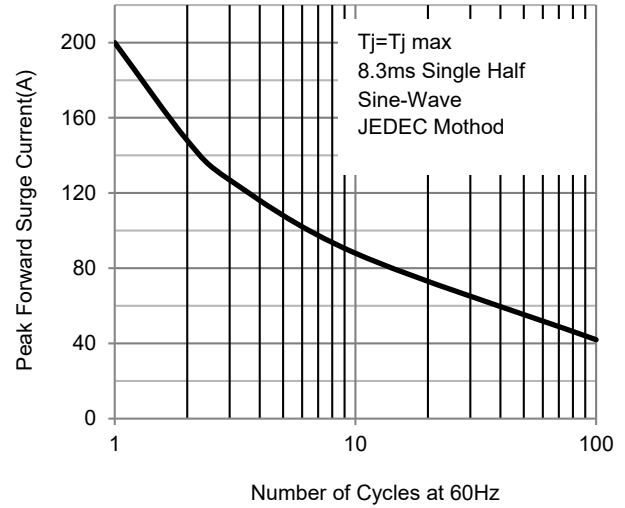


Fig.2 – Maximum Non-Repetitive Surge Current

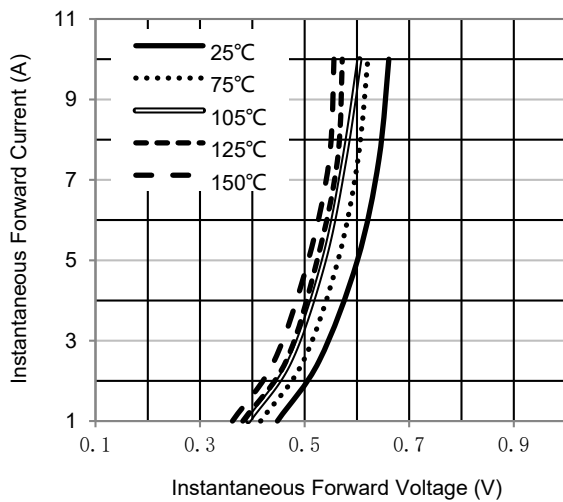


Fig.3 – Typical Forward Voltage Characteristics

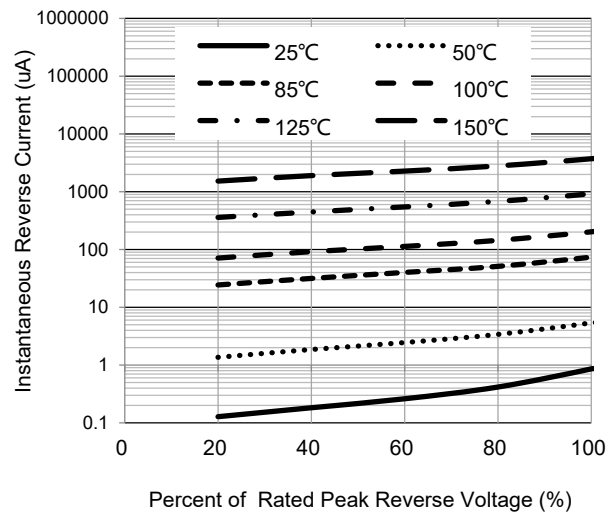
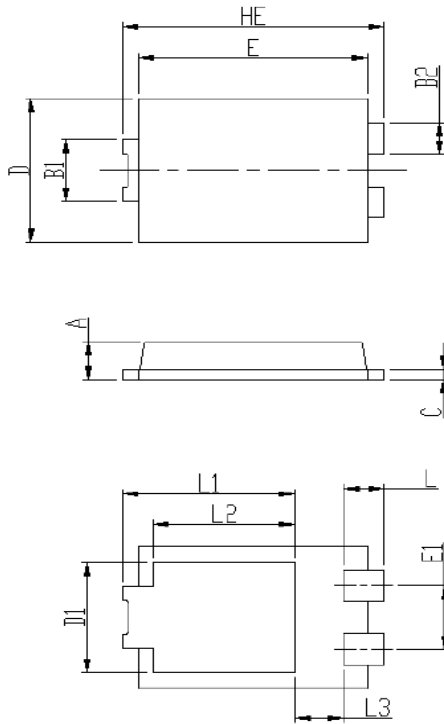


Fig.4 – Typical Reverse Current Characteristics

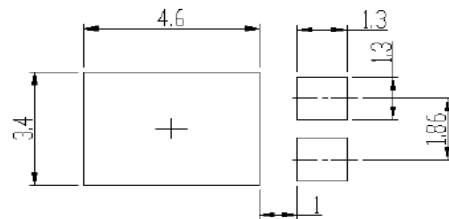
Package Outline Dimensions (Unit: millimeters)

eSGC (TO-277)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52Typ		0.139Typ	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86Typ		0.073Typ	

Soldering footprint



Revision History

Document Version	Date of release	Description of changes
Rev.A	2023.10.18	Preliminary Datasheet

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