



High Voltage Rectifier Diode
Reverse Voltage - 1200 Volts
Forward Current - 8 Amperes

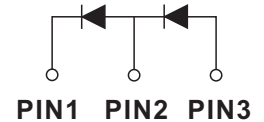
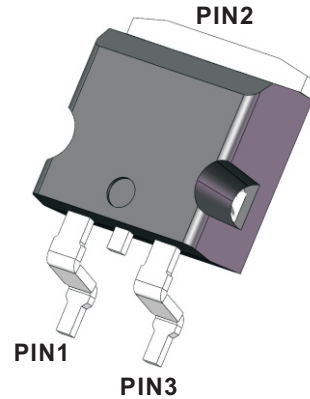
TO-263-2L

Features

- Hireliability application and automotive grade AEC-Q101 qualified
- Very low leakage current
- Very low forward voltage drop
- High voltage rectifier
- High surge current capability

Mechanical Data

- Case: TO-263-2L
- Approx. Weight: 1.52g (0.053oz)
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Lead free finish, RoHS compliant
- Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".



Packing Marking And Ordering Information

Device Package	Device	Marking	Packing Type	QTY Per Tube	Inner box	Per Carton
TO-263-2L	GR8120GL	GR8120GL	Tube	50 Pcs	2,500 Pcs	5,000 Pcs

Maximum Ratings And Electrical Characteristics

Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Parameter	Symbols	AT-GR8120GL	Units
Max. Repetitive Reverse Blocking Voltage	V_{RRM}	1200	V
Max. Non-repetitive Reverse Blocking Voltage	V_{RSM}	1300	V
Average Forward Current	$I_{F(AV)}$	8	A
Max Forward Voltage Drop $I_F=8A$ $I_F=16A$	V_F	1.2 1.4	V
Max Reverse Current @ $V_R=1200V$ $T_J=25^{\circ}C$ $T_J=150^{\circ}C$	I_R	10 200	μA
Max Forward Surge Current $t=10ms(50Hz)$ sine $t=8.3ms(60Hz)$ sine	I_{FSM}	120 130	A
Value For Fusing $t=10ms(50Hz)$ sine $t=8.3ms(60Hz)$ sine	I^2t	72 70	A^2s
Typical Thermal Resistance Junction to Case	R_{thJC}	1.5	$^{\circ}C/W$
Virtual Junction Temperature	T_{VJ}	-55 ~ +175	$^{\circ}C$
Operation Temperature	T_{OP}	-55 ~ +150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}C$



Fig.1 Typical Forward Current Derating Curve

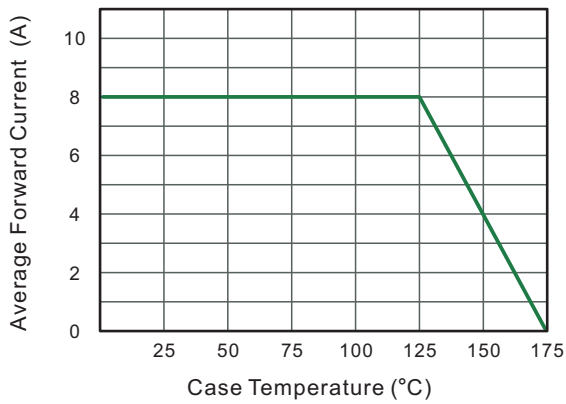


Fig.2 Typical Reverse Characteristics

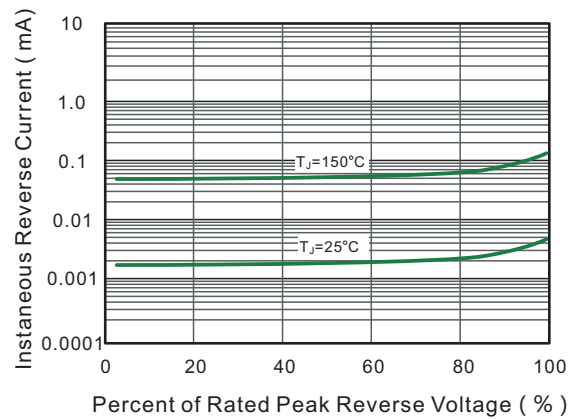


Fig.3 Typical Forward Characteristic

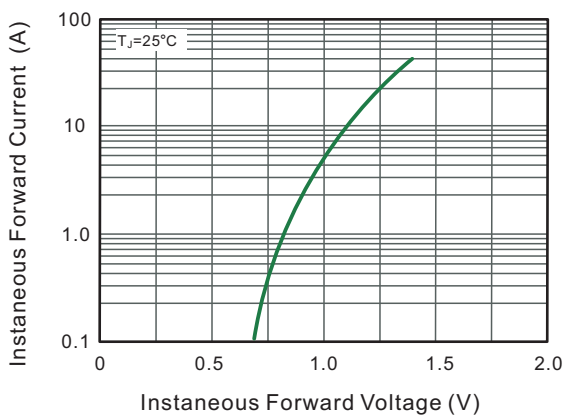
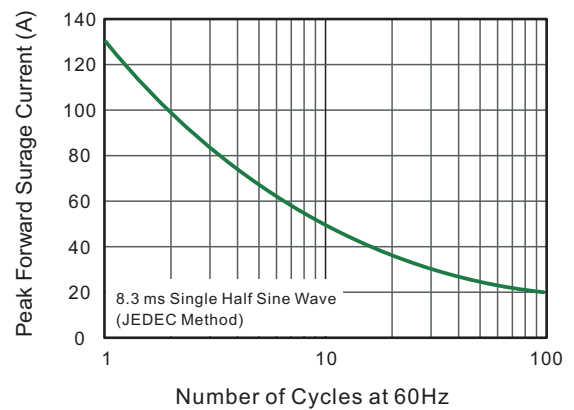


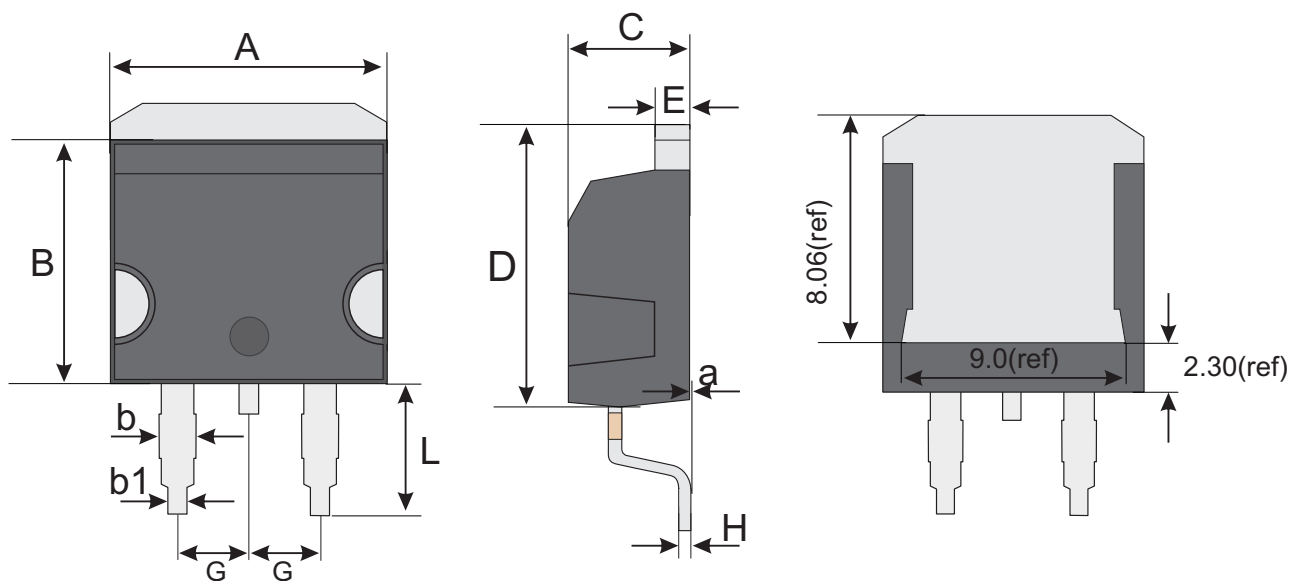
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package Outline
Plastic surface mounted package; 2 leads

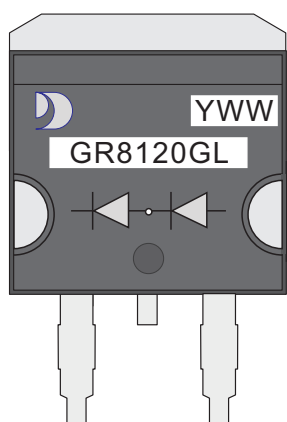
TO-263-2L



TO-263-2L mechanical data

UNIT		A	B	b	b1	C	D	E	G	H	L	a
mm	max	10.28	9.35	1.67	0.9	4.65	10.56	1.37	2.64	0.6	5.35	0.1 ref.
	typ	10.18	9.15	1.47	0.8	4.45	10.36	1.27	2.54	0.5	5.15	
	min	10.08	8.95	1.27	0.7	4.25	10.16	1.17	2.44	0.4	4.95	
mil	max	405	368	66	35	183	416	54	104	24	211	4.0 ref.
	typ	401	360	58	31	175	409	50	100	20	203	
	min	397	352	50	28	167	400	46	96	16	195	

Marking Diagram



YWW: Date Code
Y: Years(0~9)
WW: Week
GR8120GL: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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