

TO-247-2L Plastic-Encapsulate Diodes

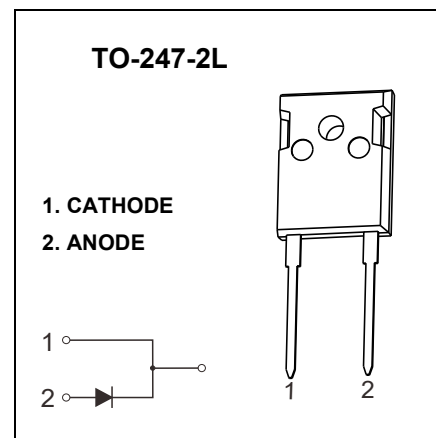
General Purpose Rectifier

MAIN CHARACTERISTICS

I_O	60A
V_{RRM}	1600 V
T_J	150 °C
$V_{F(typ)}$	1.0V (@ $T_J=125^{\circ}C$)

FEATURES

- Low Power Loss, High Efficiency
- Guard Ring Die Construction for Transient Protection
- High Current Capability and Low Forward Voltage Drop
- Metal Silicon Junction, Majority Carrier Conduction.



Mechical Data

- Case: TO-247-2L
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end

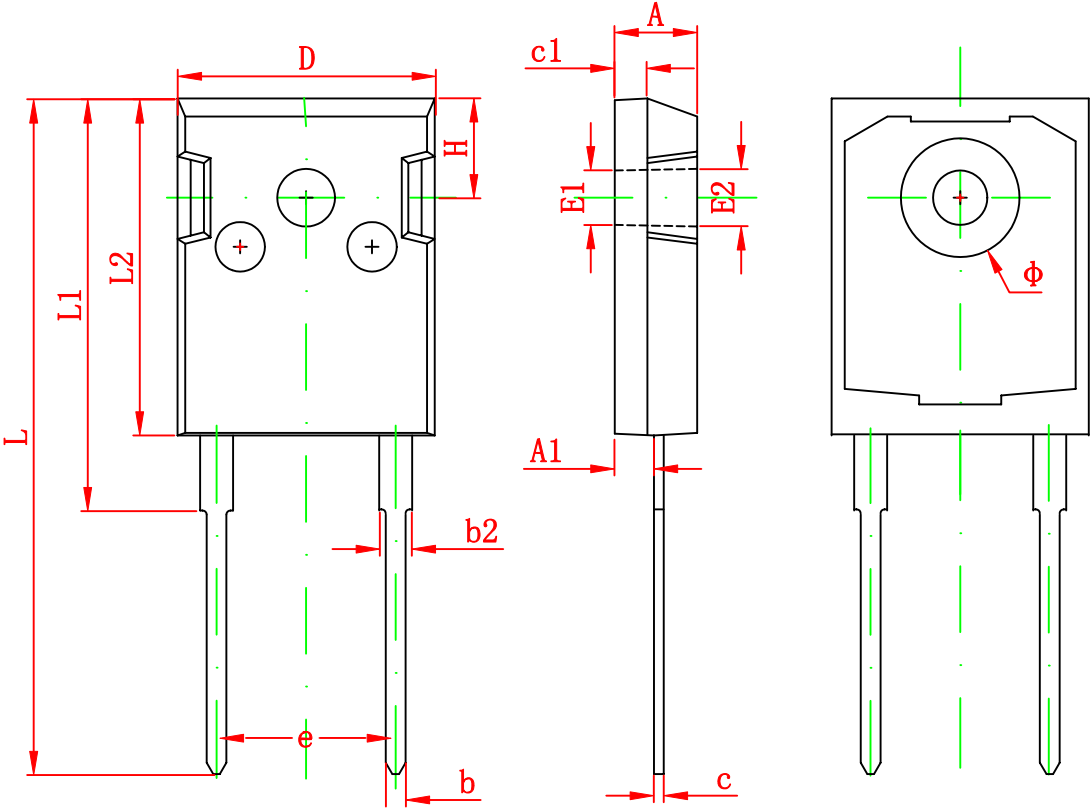
MAXIMUM RATINGS ($T_C=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	GBRW60160	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	1600	V
V_R	DC Blocking Voltage		
$I_{F(AV)}$	Average Forward Current ($T_C=120^{\circ}C$)	60	A
I_{FSM}	Non-Repetitive Surge Forward Current (8.3ms)	500	A
P_D	Power dissipation	312.5	W
$R_{\theta JC}$	Thermal Resistance From Junction to Case	0.40	$^{\circ}C/W$
T_J	Operating Junction Temperature Range	-55 ~ +150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55 ~ +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$	1600			V
Reverse current	I_R	$V_R=1600V$		1	100	μA
				0.3		mA
Forward voltage	V_F	$I_F=30A$	$T_J=25^{\circ}C$	0.9		V
			$T_J=125^{\circ}C$	0.8		V
		$I_F=60A$	$T_J=25^{\circ}C$	1.1	1.5	V
			$T_J=125^{\circ}C$	1.0		V

TO-247-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.850	5.150	0.191	0.200
A1	2.200	2.600	0.087	0.102
b	1.000	1.400	0.039	0.055
b2	1.800	2.200	0.071	0.087
c	0.500	0.700	0.020	0.028
c1	1.900	2.100	0.075	0.083
D	15.450	15.750	0.608	0.620
E1	3.500 REF		0.138 REF	
E2	3.600 REF		0.142 REF	
L	40.900	41.300	1.610	1.626
L1	24.800	25.100	0.976	0.988
L2	20.300	20.600	0.799	0.811
Φ	7.100	7.300	0.280	0.287
e	10.86 TYP		0.427 TYP	
H	5.980 REF		0.235 REF	