

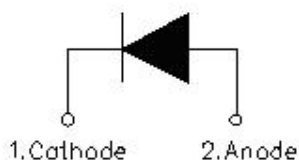
SD60120W STANDARD RECTIFIER



Features

- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O
- Terminals finish: Tin Lead-free plated
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical data

- Case: Molded Plastic
- Terminals: Solder Plated , Solderable Per MIL-STD 750, Method 2026
- Weight: 6.28 grams(Approx)

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	1200	V
Average Rectified Forward Current	$I_F(AV)$	$T_c=128^{\circ}C$, In DC	60	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	10ms, Half Sine pulse, $T_c = 25^{\circ}C$	850	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 60A, Pulse, $T_j = 25^{\circ}C$	1.08	1.19	V
	V_{F2}	@ 60A, Pulse, $T_j = 150^{\circ}C$	0.99	1.10	V
Reverse Current*	I_{R1}	@ $V_R =$ rated V_R , $T_j = 25^{\circ}C$	1	30	μA
	I_{R2}	@ $V_R =$ rated V_R , $T_j = 150^{\circ}C$	0.2	0.3	mA

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	-	0.30	°C/W
Approximate Weight	wt	-	6.28	g
Case Style	TO-247AC			

Ratings and Characteristics Curves

Figure1 Typical Forward Characteristics

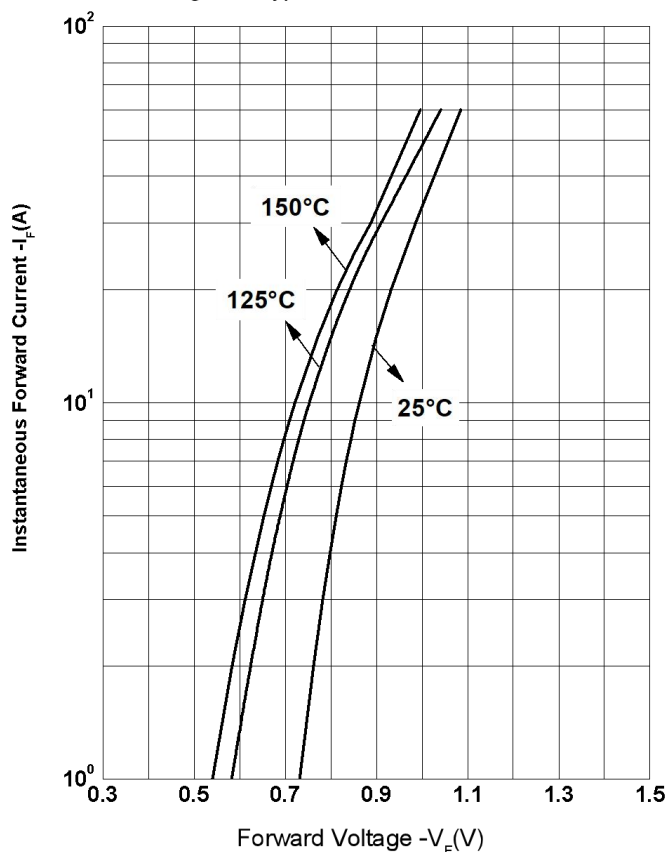


Figure 2 Typical Reverse Characteristics

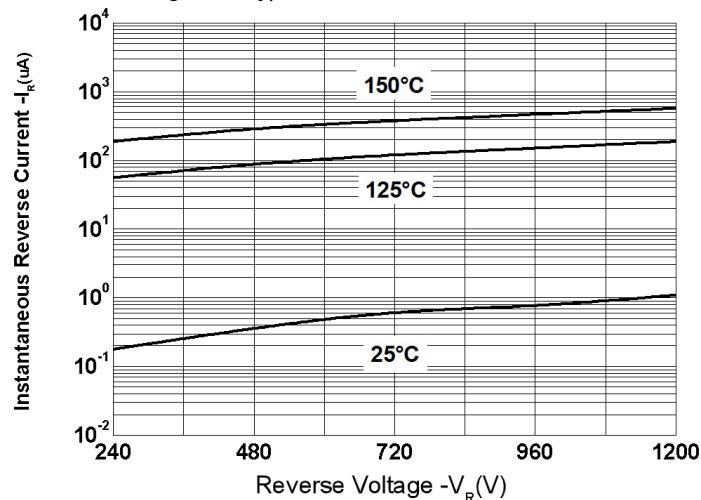
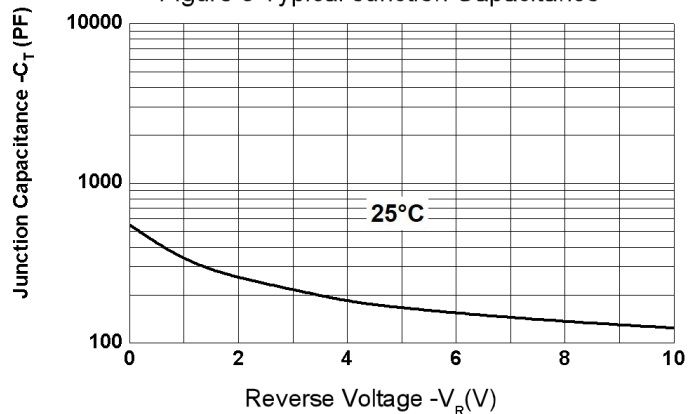
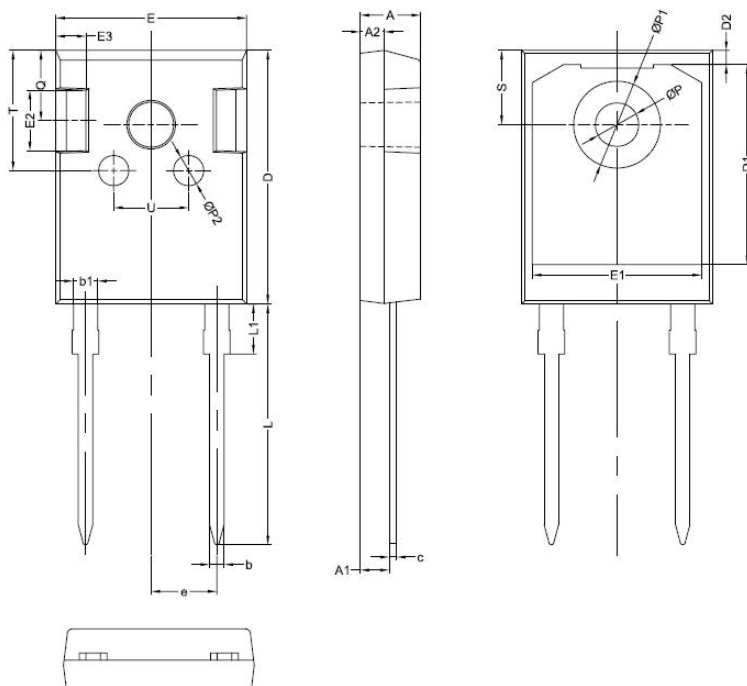


Figure 3 Typical Junction Capacitance



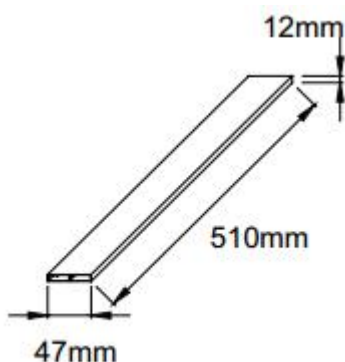
Mechanical Dimensions TO-247AC



SYMBOL	Millimeters		
	MIN.	TYP.	MAX.
A	4.80	5.00	5.20
A1	2.20	2.41	2.61
A2	1.90	2.00	2.10
b	1.10	1.20	1.35
b1	1.80	2.00	2.20
c	0.50	0.60	0.75
D	20.30	21.00	21.20
D1		16.58	
D2		1.17	
E	15.60	15.80	16.00
E1		14.02	
E2		5.00	
E3		2.50	
e		5.44	
L	19.42	19.92	20.42
L1		4.13	
P	3.50	3.60	3.70
P1	7.1	7.19	7.40
P2		2.50	
Q		5.80	
S	6.05	6.15	6.25
T		10.00	
U		6.20	

Tube Specification

Marking Diagram



Where XXXXX is YYWWL

SD = Device Type
60 = Forward Current (60A)
120 = Reverse Voltage(1200V)
W = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL94V-0

Ordering Information:

Device	Package	Shipping
SD60120W	TO-247AC(Pb-Free)	25pcs / tube

Technical Data
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