

60A SBR[®] Super Barrier Rectifier

Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability
- Molded Plastic TO-247AB package
- **Lead Free Finish, RoHS Compliant (Note 2)**

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish — Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208 **(E3)**
- Polarity: As Marked on Body
- Ordering Information: See Page 3
- Marking Information: See Page 3

Maximum Ratings @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

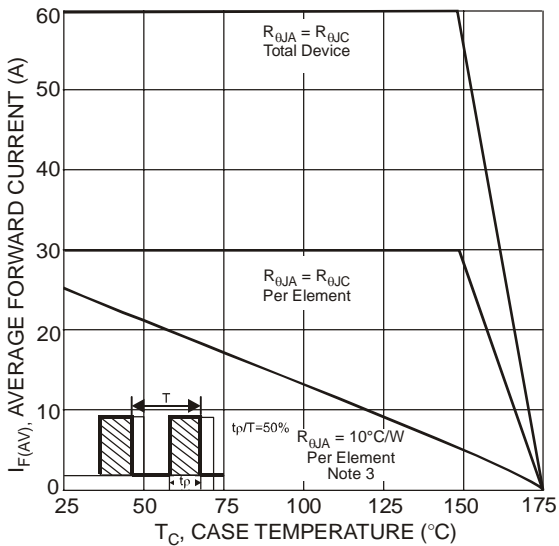
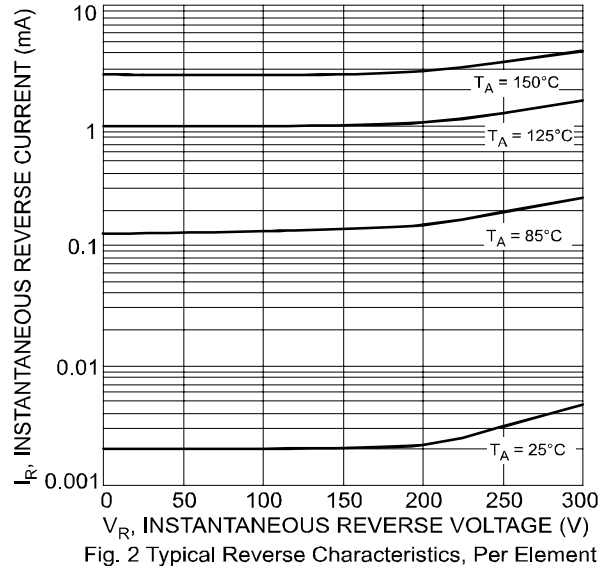
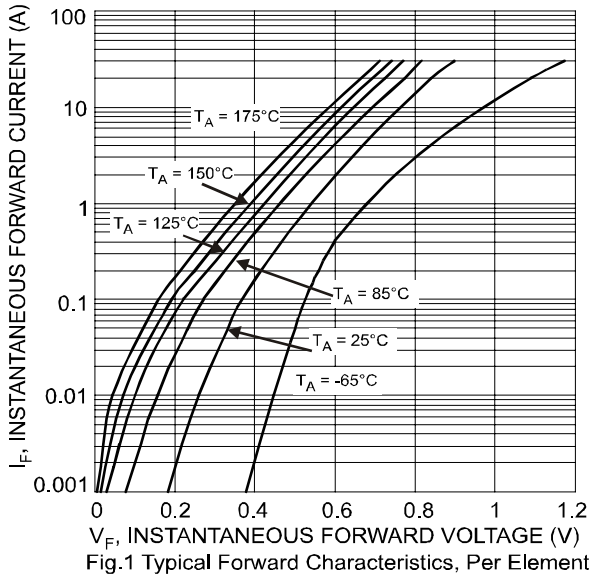
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _{RM}	300	V
RMS Reverse Voltage	V _{R(RMS)}	212	V
Average Rectified Output Current @ T _C = 140°C	I _O	60	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	300	A
Maximum Thermal Resistance (per leg) (Note 3)	R _{θJC}	1.0	°C/W
Maximum Thermal Resistance (total) (Note 3)	R _{θJC}	0.55	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +175	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

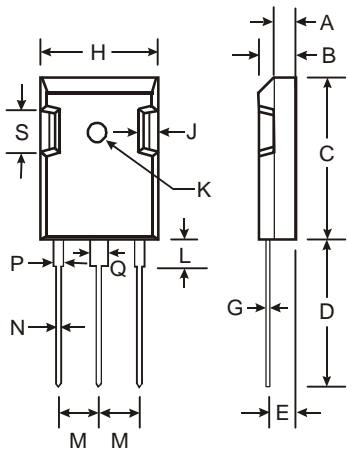
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	300	-	-	V	I _R = 100μA
Forward Voltage Drop (per leg)	V _F	-	0.89 0.78	0.94 0.82	V	I _F = 30A, T _j = 25°C I _F = 30A, T _j = 125°C
Leakage Current (Note 1)	I _R	-	9 2	100 10	μA mA	V _R = 300V, T _j = 25°C V _R = 300V, T _j = 125°C
Reverse Recovery Time	T _{RR}	-	-	50	nS	I _F = 0.5A, I _{RR} = 0.25A, I _R = 1A

- Notes:
1. Short duration pulse test used to minimize self-heating effect.
 2. RoHS revision 13.2.2003. High temperature solder exemption applied, see *EU Directive Annex Note 7*.
 3. Device mounted on heatsink (Black Aluminum, 37mm x 15mm x 50mm)

SBR60A300PT

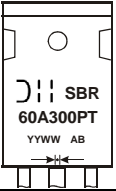


Package Outline Drawing



TO-247		
Dim	Min	Max
A	1.9	2.1
B	4.85	5.15
C	20.3	21.75
D	19.60	20.1
E	2.2	2.6
G	0.51	0.76
H	15.45	16.25
J	1.93	2.18
K	2.9Ø	3.2Ø
L	3.78	4.38
M	5.2	5.7
N	1.0	1.4
P	1.8	2.2
Q	2.8	3.2
S	4.4 Typ.	
All Dimensions in mm		

Marking, Polarity, Weight & Ordering Information

SBR60A300PT	Marking	Weight
		5.6 grams (approximate)

Ordering Information	Date Code
SBR60A300PT 30 pieces/tube	SBR60A300PT = Product Type Marking Code YY = Last two digits of year, ex = 07 = 2007 WW = Week (01-52)

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