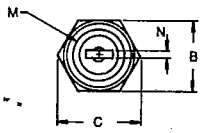
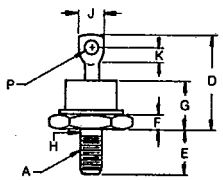
Schottky Rectifier

Series SBR80

80 A Avg; V_{RRM} up to 50 Volts

- Guard ring reverse protection
- 50 Volts V_{RRM} / V_{RWM}
- 80 Amperes
- 175° (T_J)





DO-203AB
(DO-5)

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	----	----	----	----	1
B	.677	.687	17.19	17.44	
C	----	.793	----	20.14	
D	----	1.000	----	25.40	
E	.432	.442	10.97	11.22	
F	.125	.135	3.17	3.42	
G	.323	.353	8.20	8.96	
H	.220	.249	5.58	6.32	2
J	----	.375	----	9.52	
K	.156	----	3.96	----	
M	----	.510	----	12.95	Dia.
N	----	.080	----	2.03	
P	.140	.175	3.55	4.45	Dia.

Note 1:
No. ¼-28 UNF-2A Standard Polarity: Stud is cathode
Note 2:
Full thread within 2½ threads

Catalog Number	Pro Electron Number	Working Peak Reverse Voltage V_{RWM}	Rep. Peak Reverse Voltage V_{RRM}
SBR8035	BYS71-35	35	35
SBR8040	BYS71-40	40	40
SBR8045	BYS71-45	45	45
SBR8050	BYS71-50	50	50

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Electrical characteristics

Maximum average forward current	$I_{F(AV)}$	80 Amps	$T_C = 120°C$
Maximum surge current	I_{FSM}	1000 Amps	8.3 ms, half sine, $T_J = 175°C$
Maximum repetitive peak reverse current	$I_{R(OV)}$	2 Amps	f = I KHz, 25°C;
Maximum peak forward voltage	V_{FM}	0.74 volts	$I_{FM} = 80A$: $T_J = 25°C$*
Maximum peak reverse current	I_{RM}	60mA	V_{RRM}, $T_C = 125°C$*
Typical reverse current, per leg	I_{RM}	3mA	V_{RRM}, $T_J = 25°C$*
Typical junction capacitance	C_J	2300pF	$V_R = 5.0V$, $T_C = 25°C$

Thermal Characteristics

Storage temp range	T_{stg}	−55°C to +175°C	
Operating junction temp range	T_J	−55°C to +175°C	
Peak junction temp.	T_{JM}		
Maximum thermal resistance	$R\Theta_{JC}$	0.83°C/W	Junction to case
Typical thermal resistance	$R\Theta_{CS}$	0.3°C/W	Case to sink

Mechanical Characteristics

Base	Copper stud base with a ¼-28 UNF-2A; thread for through mounting on a heat sink. Nickel plating of base produces low contact resistance and prevents corrosion.
Header	Glass to metal construction.
Weight	Approximately 0.5 ounce (14 grams)
Mounting torque	30 inch pounds maximum
Dimensions	In accordance with JEDEC DO-203AB (DO-5) outline

*Pulse test: Pulse width 300 μsec, Duty cyice 2%

Figure 1
Maximum forward characteristics

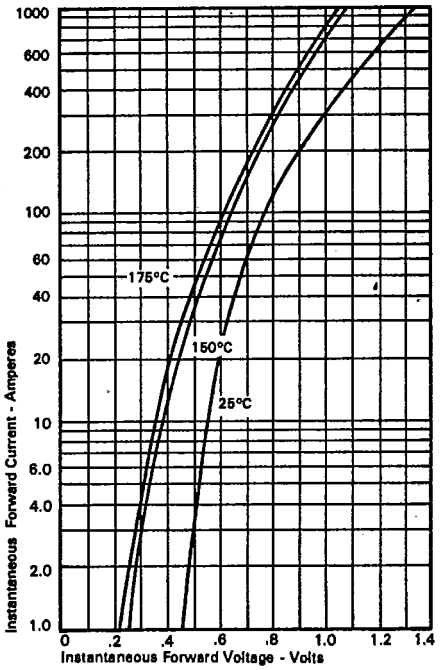

Figure 2
Forward current derating

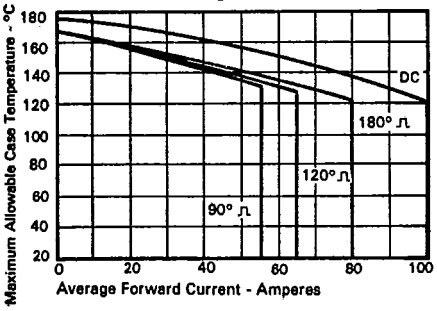

Figure 3
Typical junction capacitance

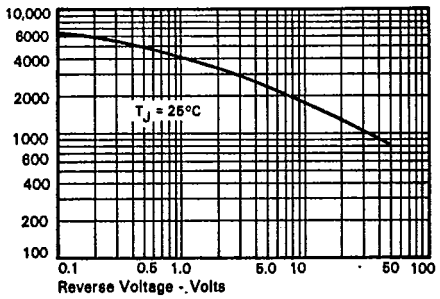

Figure 4
Typical reverse characteristics

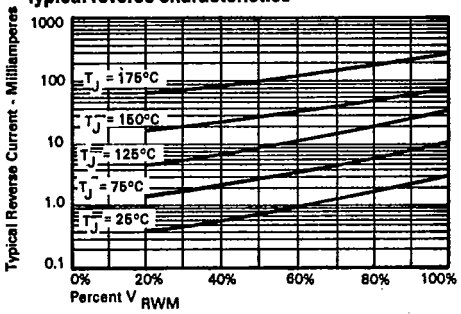

Figure 5
Maximum forward power dissipation