DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

MBR3520-MBR35100

35A SCHOTTKY BARRIER RECTFIER

FEATURES

- Available as “HR” (high reliability) screened per MIL-PRF-19500, JANTX level. Add “HR” suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding “-PBF” suffix.

MAXIMUM RATINGS

Part Number	Maximum recurrent peak reverse voltage	Maximum RMS voltage	Maximum DC blocking voltage
MBR3520	20V	14V	20V
MBR3530	30V	21V	30V
MBR3535	35V	24.5V	35V
MBR3540	40V	28V	40V
MBR3545	45V	31.5V	45V
MBR3560	60V	42V	60V
MBR3580	80V	56V	80V
MBR35100	100V	70V	100V

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Test Conditions
Average forward current	$I_{F(AV)}$	35A	T_A = 110°C
Peak forward surge current	I_{FSM}	600A	8.3ms, half-sine
Maximum forward voltage drop **MBR3520-3545** **MBR3560** **MBR3580-35100**	V_F	 .68V .75V .84V	 I_{FM} = 35A T_A = 25°C*
Maximum DC reverse current at rated DC blocking voltage	I_R	1.5mA	T_A = 25°C

*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

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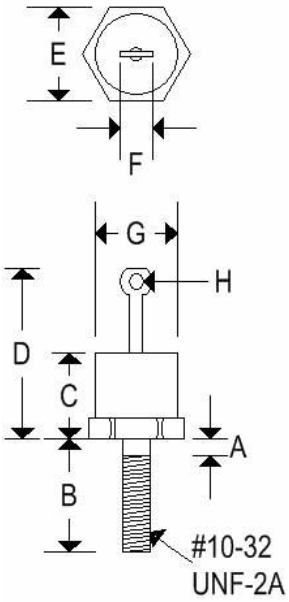
MECHANICAL CHARACTERISTICS

Case	DO-4(R)
Marking	Alpha-numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-4(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.078	-	1.981
B	0.422	0.453	10.719	11.506
C	-	0.405	-	10.287
D	-	0.800	-	20.320
E	0.420	0.440	10.668	11.176
F	-	0.250	-	6.350
G	-	0.424	-	10.770
H	0.066	-	1.676	-

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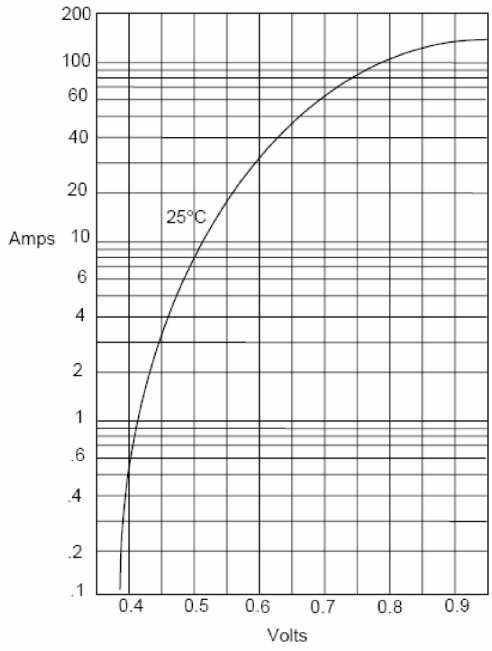
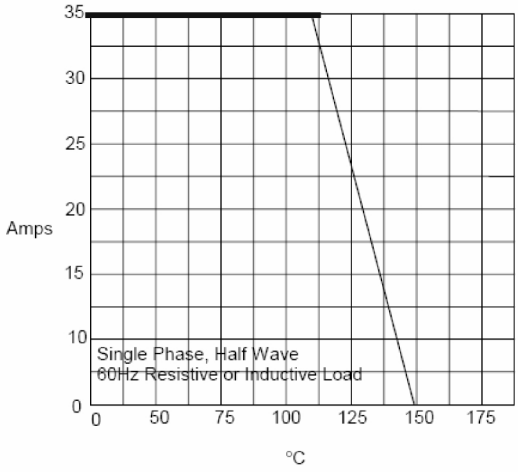
Figure 1
Typical Forward Characteristics



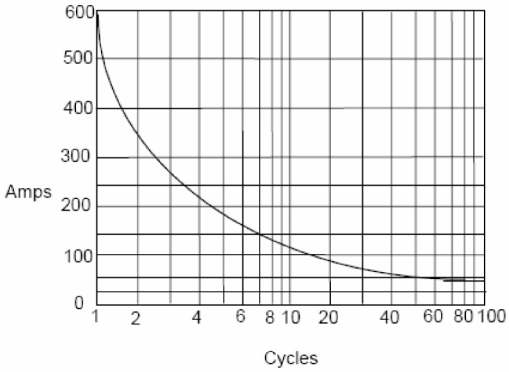
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



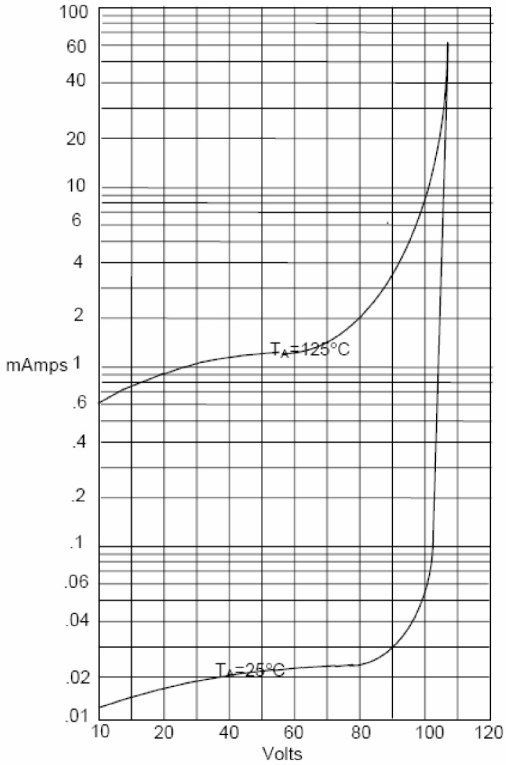
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts