DIGITRON SEMICONDUCTORS

MBR2535CTL **25A SCHOTTKY RECTIFIER**

MAXIMUM RATINGS

Rating	Symbol	MBR2535CTL	Unit
Peak repetitive reverse voltage **Working peak reverse voltage** **DC blocking voltage**	V_{RRM} V_{RWM} V_R	35 30 30	V
Average rectified forward current (Rated V_R)	$I_{F(AV)}$	12.5 @ T_C = 110°C	A
Peak repetitive forward current (Rated V_R, square wave, 20 kHz)	I_{FRM}	25 @ T_C = 95°C	A
Peak repetitive reverse surge current (2.0µs, 1.0 kHz)	I_{RRM}	1	A
Non-repetitive peak surge current (surge applied at rated load conditions, halfwave, single phase, 60Hz)	I_{FSM}	150	A
Operating junction temperature range	T_J	-65 to +125	°C
Storage junction temperature range	T_{stg}	-65 to +150	°C
Voltage rate of change (Rated V_R)	dv/dt	10000	V/µs
Controlled avalanche energy	W_{aval}	20	mJ
Maximum thermal resistance Junction to case	$R_{\Theta JC}$	2.0	°C/W

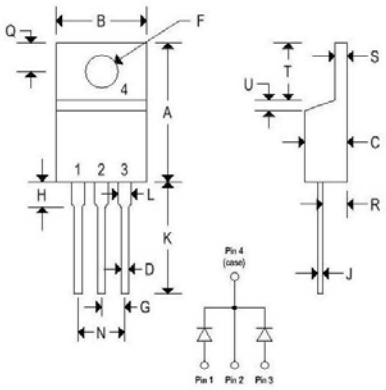
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Parameter	Symbol	MBR2535CTL	Unit
Maximum instantaneous forward voltage (1) (I_F = 25A, T_C = 25°C) (I_F = 12.5A, T_C = 25°C) (I_F = 12.5A, T_C = 125°C)	V_F	 0.55 0.47 0.41	V
Maximum instantaneous reverse current (1) (Rated dc voltage, T_C = 25°C) (Rated dc voltage, T_C = 125°C)	I_R	 5.0 500	mA

Note 1: Pulse test: Pulse width = 300µs, duty cycle ≤ 2.0%.

MECHANICAL CHARACTERISTICS

Case	TO-220AB
Marking	Alpha-numeric
Pin out	See below



	TO-220AB			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.570	0.620	14.480	15.750
B	0.380	0.405	9.660	10.280
C	0.160	0.190	4.070	4.820
D	0.025	0.035	0.640	0.880
F	0.142	0.147	3.610	3.730
G	0.095	0.105	2.420	2.660
H	0.110	0.155	2.800	3.930
J	0.018	0.025	0.460	0.640
K	0.500	0.562	12.700	14.270
L	0.045	0.060	1.150	1.520
N	0.190	0.210	4.830	5.330
Q	0.100	0.120	2.540	3.040
R	0.080	0.110	2.040	2.790
S	0.045	0.055	1.150	1.390
T	0.235	0.255	5.970	6.470
U	-	0.050	-	1.270

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MBR2535CTL 25A SCHOTTKY RECTIFIER

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

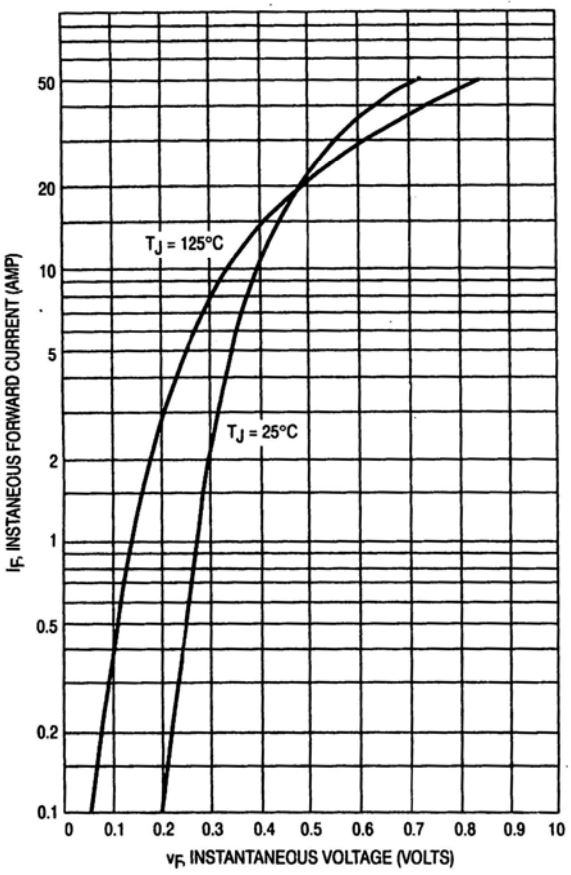


Figure 1. Typical Forward Voltage, Per Leg

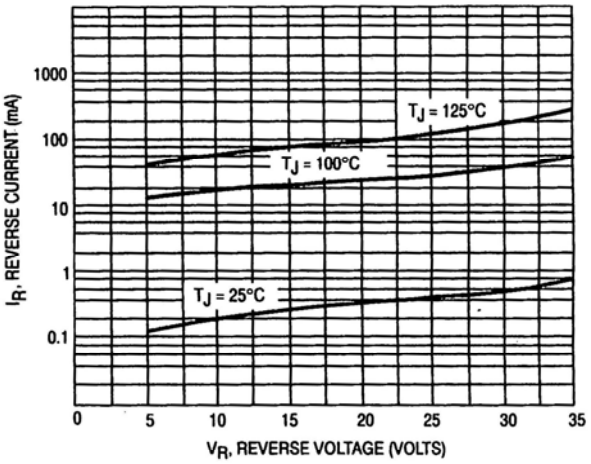


Figure 2. Typical Reverse Current, Per Leg

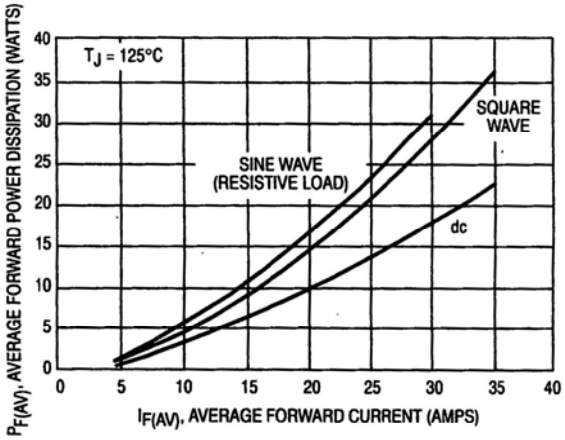


Figure 3. Forward Power Dissipation, Per Leg

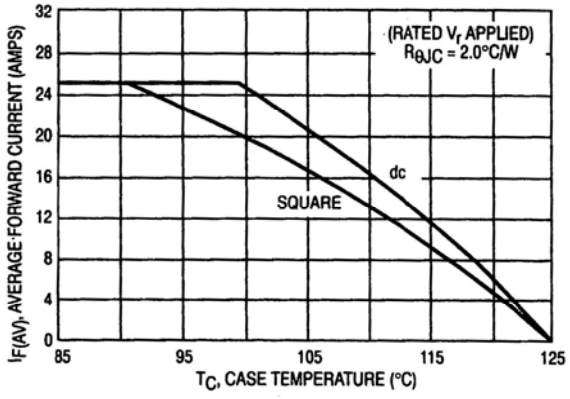


Figure 4. Current Derating

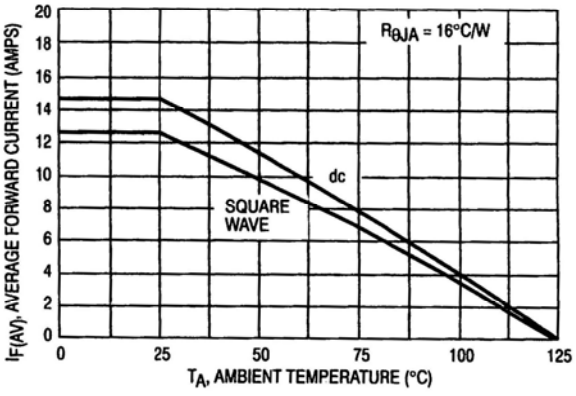


Figure 5. Current Derating Ambient, Per Leg

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