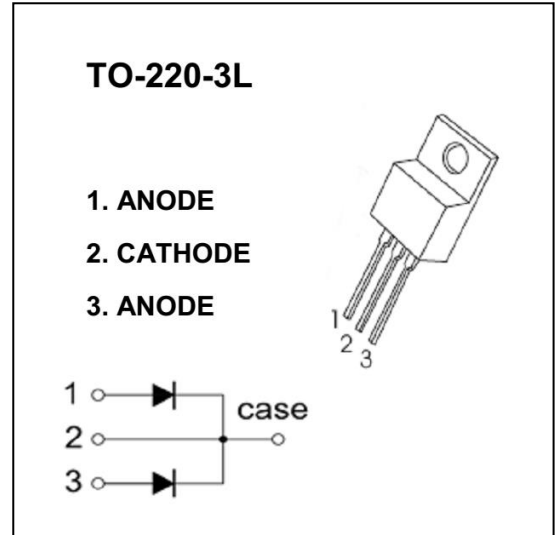




MBR10L100CT

Feature

- Low Power Loss, High Efficiency
- Low Reverse Current
- High Surge Capability
- High Current Capability and Low Forward Voltage



ABSOLUTE MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

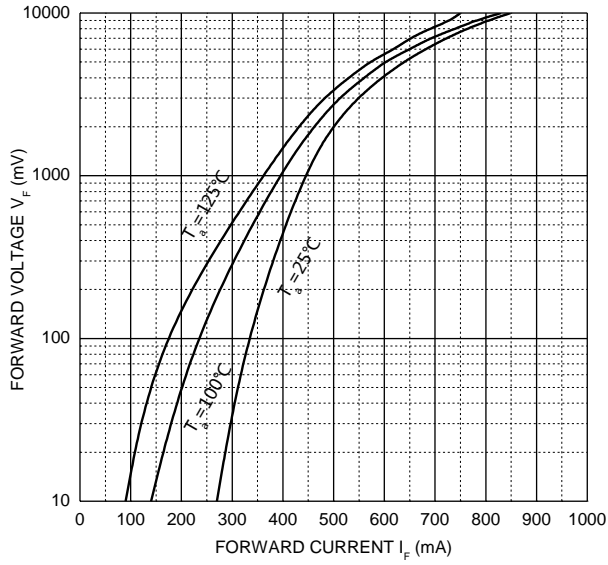
Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V _{RRM}	100	V
Working peak reverse voltage	V _{RWM}		
DC blocking voltage	V _R		
RMS reverse voltage	V _{R(RMS)}	70	V
Average rectified output current@ T _c =100°C	I _O	10	A
Non-Repetitive peak forward surge current 8.3ms half sine wave	IFSM	120	A
Power dissipation	P _D	2.5	W
Thermal resistance from junction to ambient	R _{θJA}	50	°C/W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

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

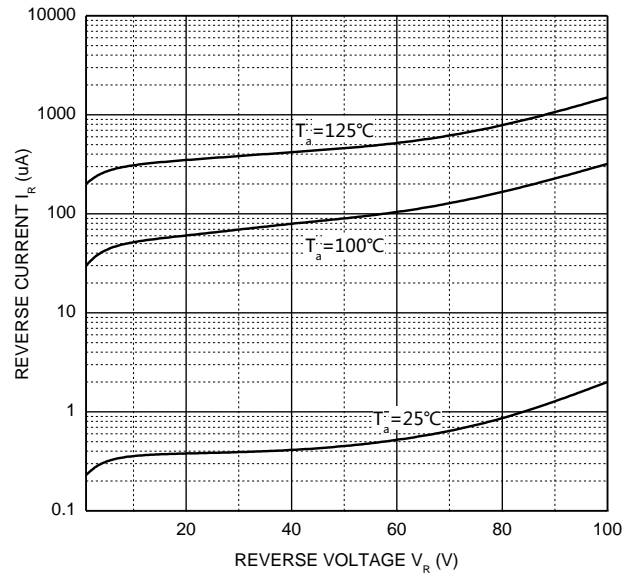
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	V _(BR)	I _R =250μA	100	125		V
Reverse current	I _R	V _R =100V		3	20	μA
Forward voltage	V _F	I _F =5A		0.64	0.68	V
	V _F	I _F =10A		0.84	0.90	V
Typical total capacitance	C _{tot}	VR=4V,f=1MHz		450		pF

Typical Characteristics

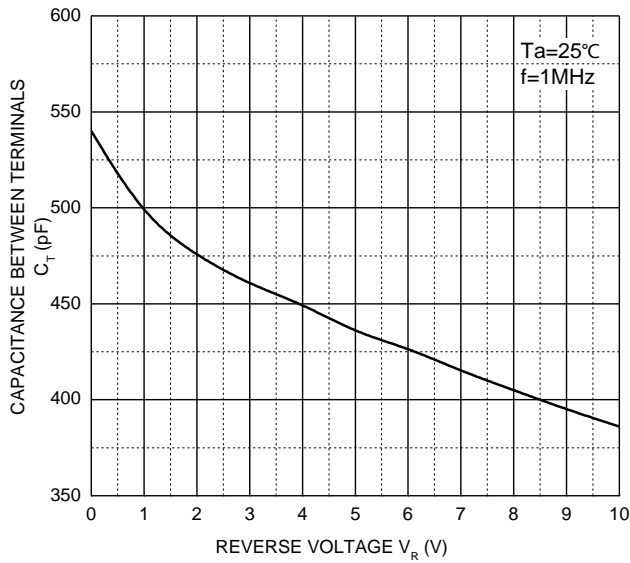
Forward Characteristics



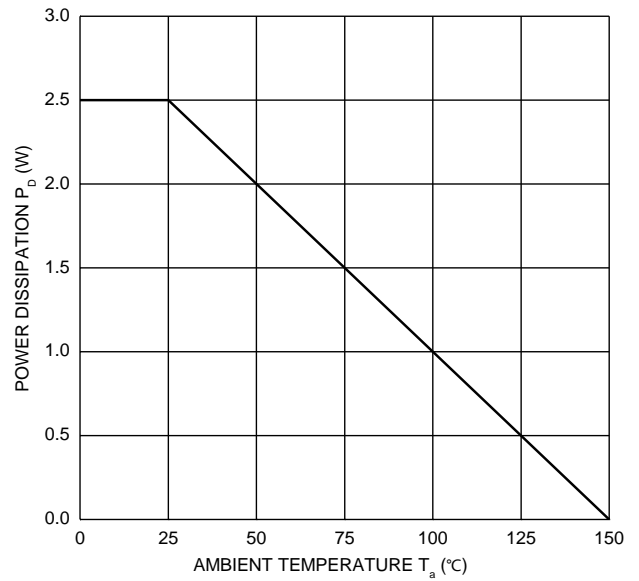
Reverse Characteristics



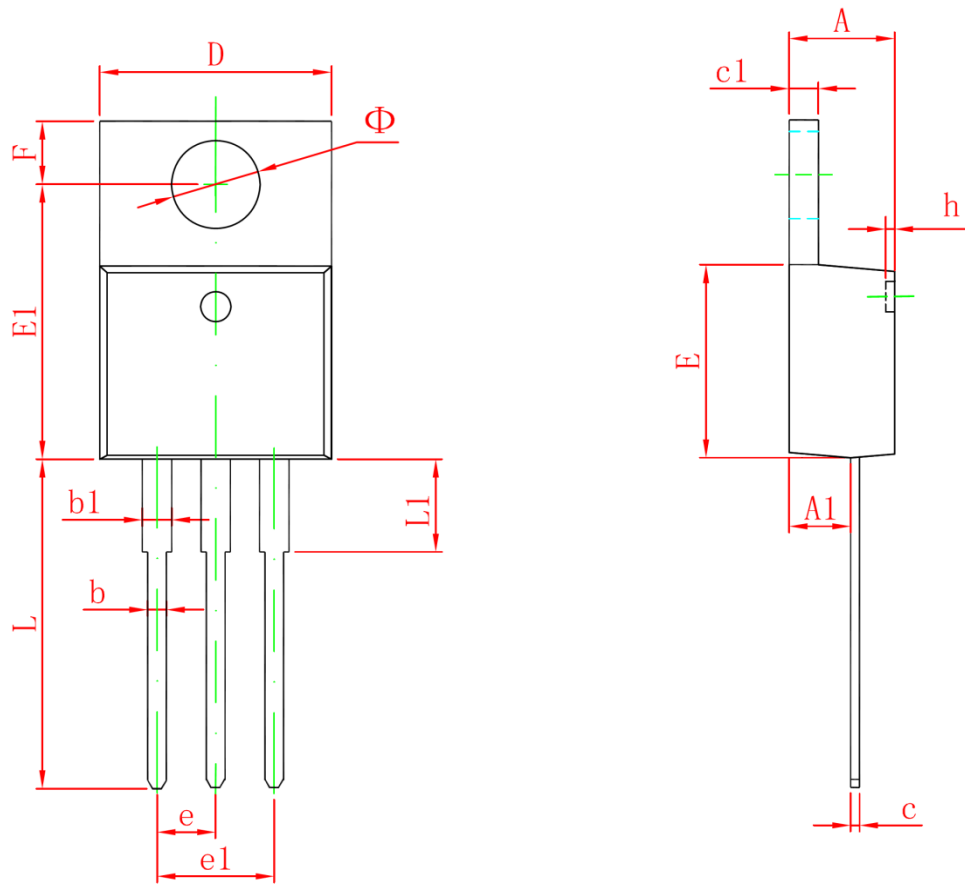
Capacitance Characteristics



Power Derating Curve



TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155