

MBR80150PT Schottky Barrier Diode

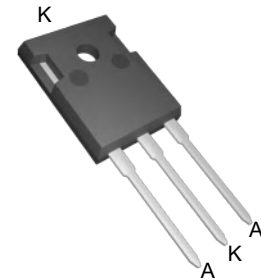
Features

High frequency
operation High Junction
temperature Low
leakage current High
reliability
RoHS product

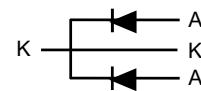
Mechanical Data

Molding compound meets UL 94 V-0
flammability rating, RoHS-compliant
Terminals: Tin plated leads, solderable per J
-STD-002 and JESD22-B102
Polarity: As marked on body

Package



TO-247AD



Device Summary

Symbol	Value
$I_F(AV)$	80A
V_{RRM}	150V
$V_F(typ)$	0.77V@40A 125°C
$I_R(typ)$	1.0mA@150V 125°C
$T_{j(max)}$	175°C

Maximum ratings

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V _{RRM}	150	V
Average forward current	I _{F(AV)}	80 40	A
Non-repetitive single pulse surge current t=8.3ms	I _{FSM}	400	A
Junction temperature	T _j	-55~+175	°C
Storage temperature	T _{STG}	-55~+175	°C

Electrical characteristics(T_C=25°C)

Parameter	Tests conditions		Value			Unit
			(min)	(typ)	(max)	
V _{RRM}	I _R =0.05mA		150	-	-	V
I _R	T _j =25°C	V _R =V _{RRM}	-	-	0.1	mA
	T _j =125°C		-	-	20	
V _F	T _j =25°C	I _F =40A	-	-	0.95	V
	T _j =125°C	I _F =1A	-	0.40	-	
		I _F =20A	-	0.68	-	
		I _F =40A	-	0.77	-	

Thermal characteristics(T_C=25°C)

Parameter	Symbol	Value	Unit
Thermal resistance from junction to case	R _{th(j-c)}	1.5	°C/W

Typical Characteristic Curve

FIG 1: I_F - T_C

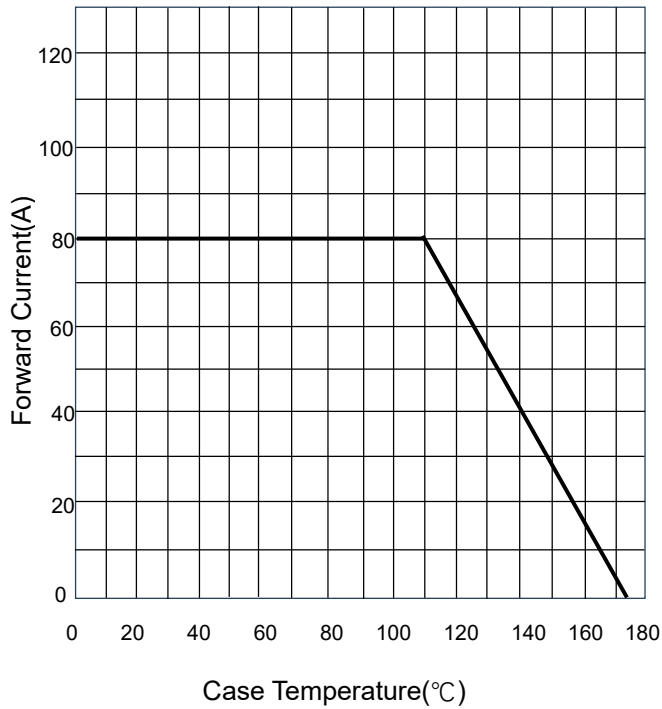


FIG 2: Surge Forward Current Capability

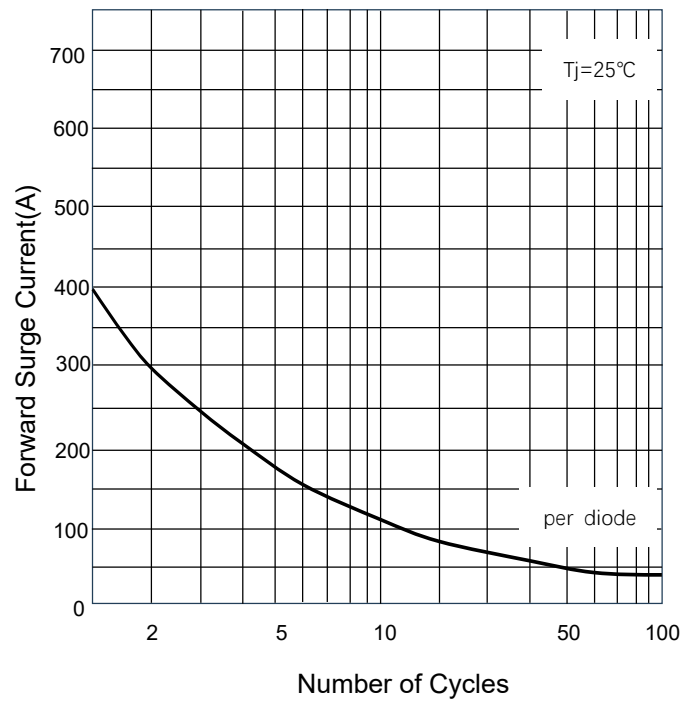


FIG 3: V_R - I_R

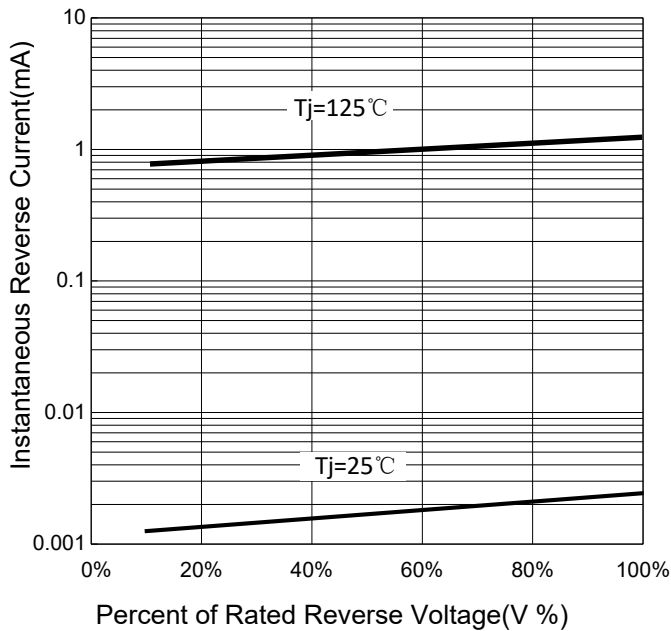
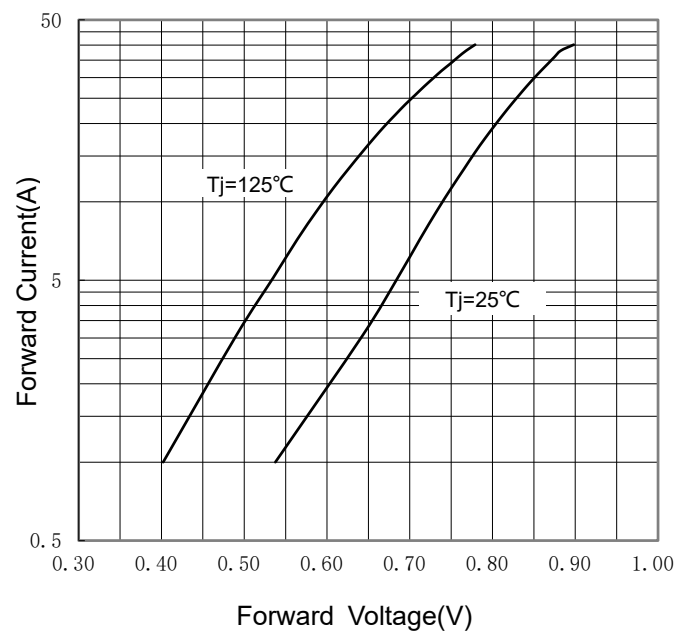
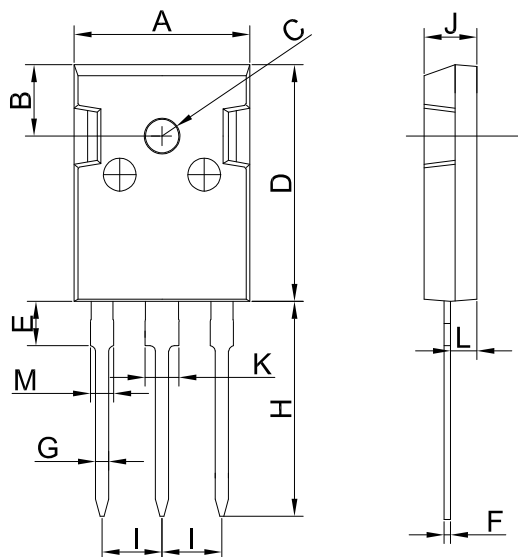


FIG 4: I_F - V_F



Outline Dimensions and Pad Layout Reference

TO-247AD



Dim	Min	Typ	Max
A	15.80	16.00	16.20
B	6.30	6.50	6.70
C	3.05	3.20	3.35
D	21.20	21.50	21.80
E	3.80	4.00	4.20
F	0.50	0.60	0.70
G	1.00	1.20	1.40
H	19.20	19.50	19.70
I	5.35	5.45	5.60
J	4.60	4.80	5.00
K	2.90	3.10	3.30
L	2.20	2.40	2.60
M	15.80	16.00	16.20
(mm)			
Dimensions in millimeters			