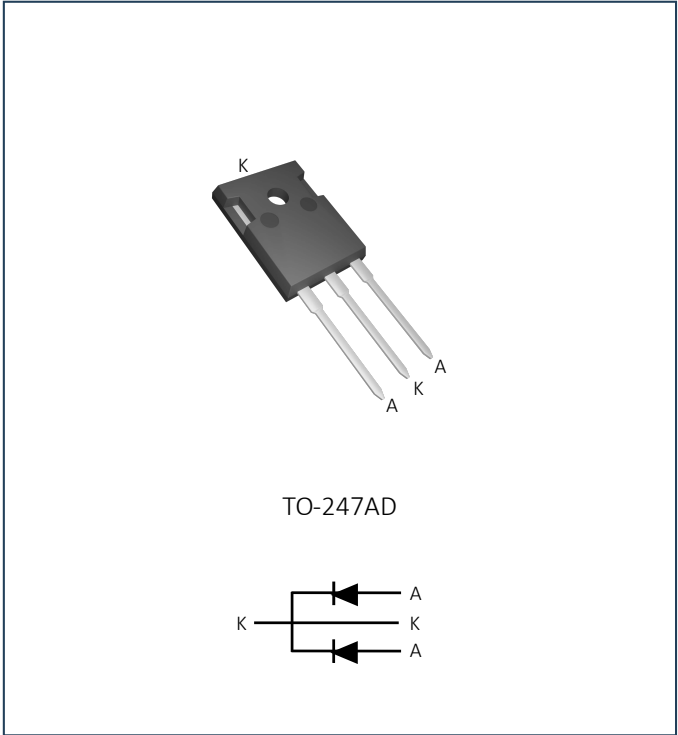


MBR40100PT

Schottky Barrier Diode

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_F(AV)$	40A
V_{RRM}	100V
$V_F(typ)$	0.68V@20A 125°C
$I_R(typ)$	1.0mA@100V 125°C
$T_{j(max)}$	175°C

机械数据 Mechanical Data

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

产品特点 Features

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

最大额定值 Maximum ratings

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
反向电压 Peak repetitive reverse voltage	V_{RRM}	100	V
平均正向电流 Average forward current	$I_F(AV)$	40 20	A
浪涌电流 Non-repetitive single pulse surge current $t=8.3ms$	I_{FSM}	250	A
结温 Junction temperature	T_j	-55~+175	°C
存储温度 Storage temperature	T_{STG}	-55~+175	°C

电特性 Electrical characteristics($T_c=25^{\circ}C$)

项目 Parameter	测试条件 Tests conditions		数值 Value			单位 Unit
			最小值(min)	典型值(typ)	最大值(max)	
反向电压 V_{RRM}	$I_R=0.05mA$		100	-	-	V
反向漏电流 I_R	$T_j=25^{\circ}C$	$V_R=V_{RRM}$	-	-	0.1	mA
	$T_j=125^{\circ}C$		-	-	20	
正向电压 V_F	$T_j=25^{\circ}C$	$I_F=20A$	-	-	0.85	V
	$T_j=125^{\circ}C$	$I_F=1A$	-	0.39	-	
		$I_F=10A$	-	0.61	-	
		$I_F=20A$	-	0.68	-	

热特性 Thermal characteristics($T_c=25^{\circ}C$)

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
热阻 Thermal resistance from junction to case	$R_{th(j-c)}$	1.0	°C/W

典型特征曲线图 Typical Characteristic Curve

图 1: 正向电流与外壳温度

FIG 1: I_F - T_c

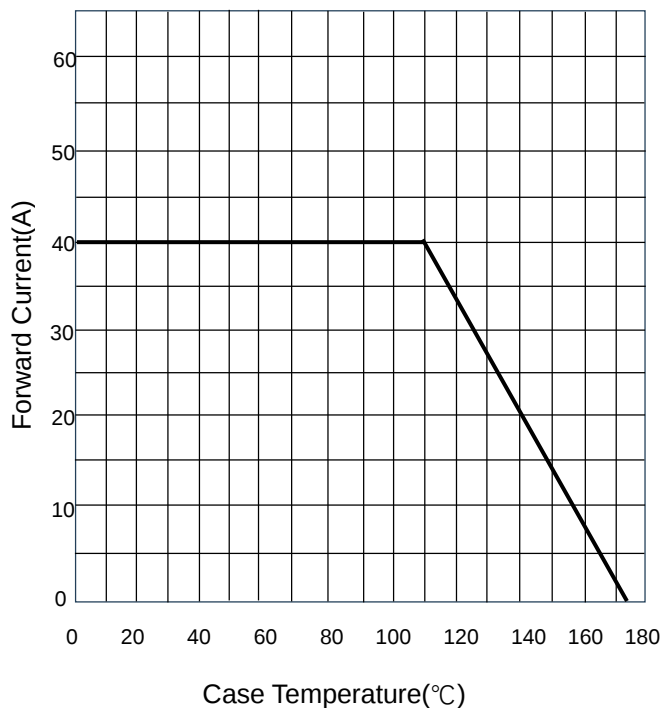


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

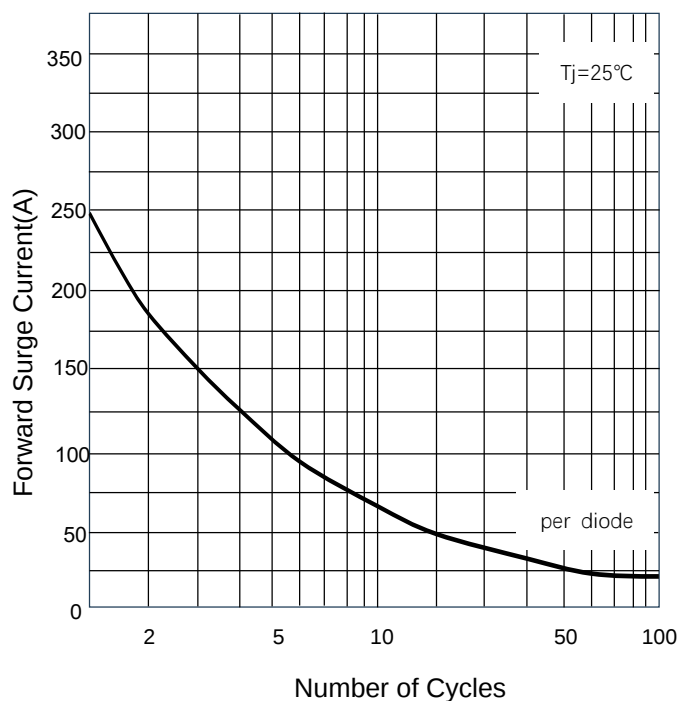


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

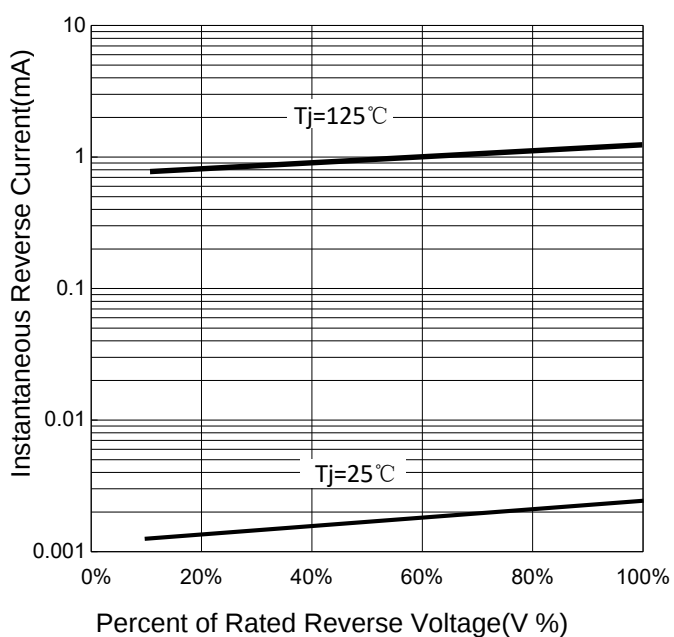
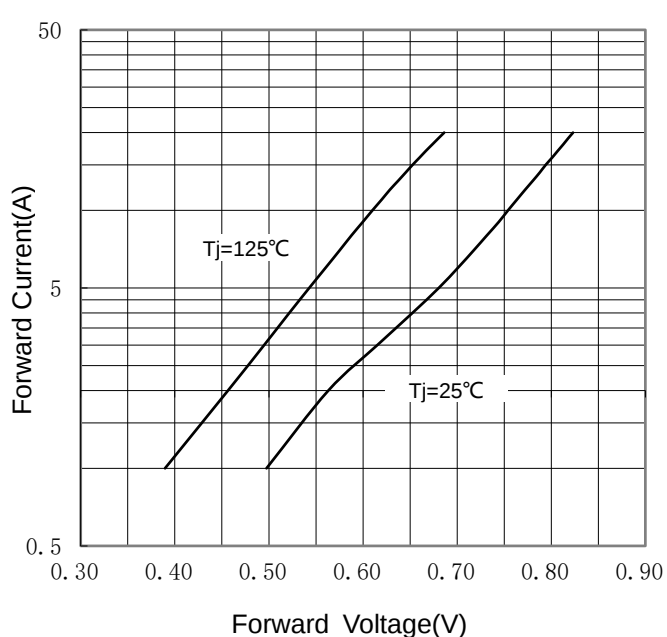
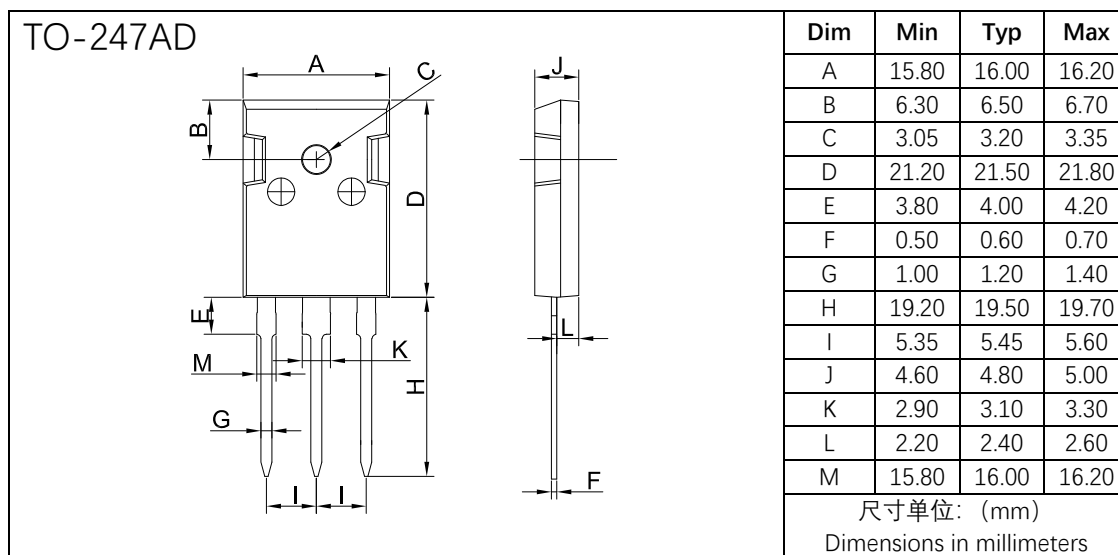


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



外形尺寸图及焊盘布局参考 Outline Dimensions and Pad Layout Reference



订购信息 Ordering Information

订单型号 Order code	印记 Marking	封装 Package	重量 Weight (g)	包装形式 Packing	基本包装 Base qty (pcs)	盒 Box (pcs)	箱 Carton (pcs)
WMBR40100PT000P	MBR40100PT	TO-247AD	5.8	管装 Tube	30	600	2400

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