



MBR240

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	2A
V_{RRM}	40 V
T_j	150 °C
$V_{F(max)}$	0.47V (@ $T_j=125^{\circ}C$)

用途

- 低压、高频整流
- 低压续流电路和保护电路

APPLICATIONS

- Low voltage, high frequency rectifier
- Free wheeling diodes, polarity protection applications

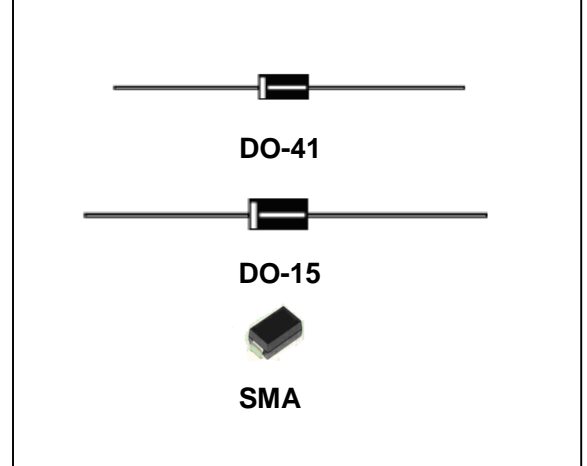
产品特性

- 轴向及贴片结构
- 低功耗，高效率
- 良好的高温特性
- 有过压保护环，高可靠性
- 环保（RoHS）产品

FEATURES

- Axial Lead and Surface Mounting Rectifier
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability

封装 Package



订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	封装 Package	无卤素 Halogen Free	包装 Packaging	器件重量 Device Weight
MBR240Y	MBR240	DO-41	否 NO	编带 Tape	0.28g(approx.)
MBR240YR	MBR240	DO-41	是 YES	编带 Tape	0.28g(approx.)
MBR240Q	MBR240	DO-15	否 NO	编带 Tape	0.33g(approx.)
MBR240QR	MBR240	DO-15	是 YES	编带 Tape	0.33g(approx.)
MBR240X	MBR240	SMA	否 NO	编带 Tape	0.071g(approx.)
MBR240XR	MBR240	SMA	是 YES	编带 Tape	0.071g(approx.)





绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
最大反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}	40	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	40	V
正向平均整流电流 $T_c=100^\circ\text{C}$ Average Rectified Forward Current	$I_{F(AV)}$	2	A
正向峰值浪涌电流 Surge non repetitive forward current (额定负载 8.3ms 半正弦波—按 JEDEC 方法) 8.3 ms single half-sine-wave (JEDEC Method)	I_{FSM}	50	A
最高结温 Maximum junction temperature	T_j	150	°C
储存温度 Storage temperature range	T_{STG}	-40~+150	°C

电特性 ELECTRICAL CHARACTERISTICS

项 目 Parameter	测试条件 Tests conditions		最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
I_R	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			50	μA
	$T_j = 125^\circ\text{C}$				20	mA
V_F	$T_j = 25^\circ\text{C}$	$I_F = 2\text{A}$		0.49	0.55	V
	$T_j = 125^\circ\text{C}$			0.44	0.47	V

热特性 THERMAL CHARACTERISTICS

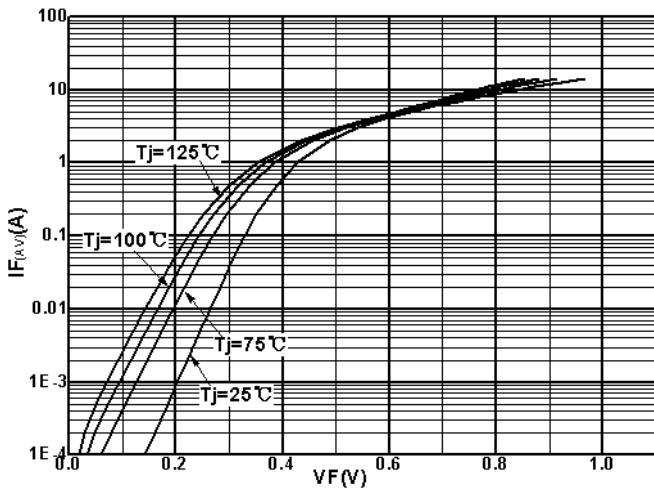
项 目 Parameter		符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到环境的热阻 Thermal resistance from junction to ambient	DO-41	$R_{th(j-a)}$		100	°C/W
	DO-15			85	
	SMA			150	
结到管壳的热阻 Thermal resistance from junction to case	DO-41	$R_{th(j-c)}$		50	°C/W
	DO-15			40	
	SMA			50	



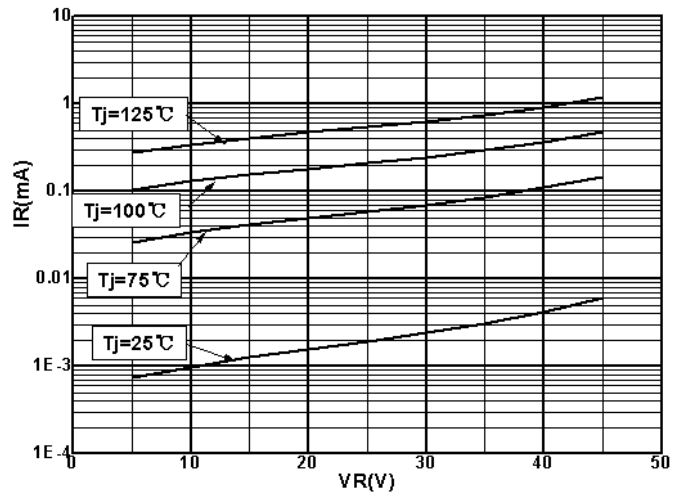


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

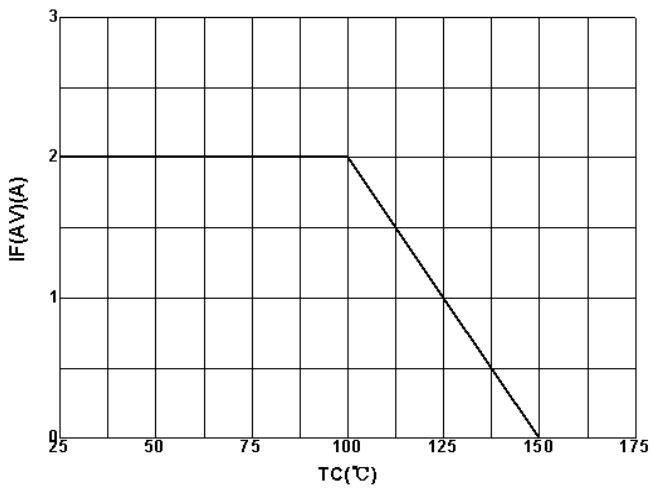
IF vs VF



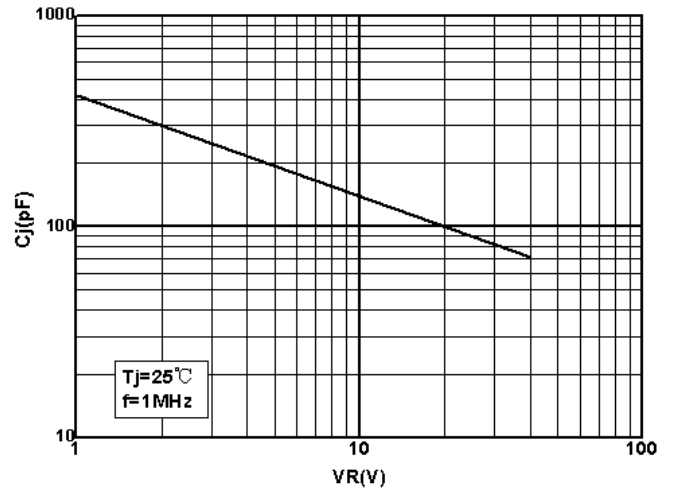
IR vs VR

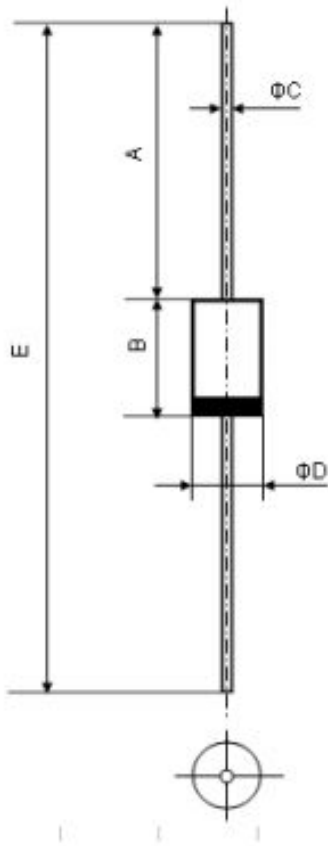


IF(AV) vs TC



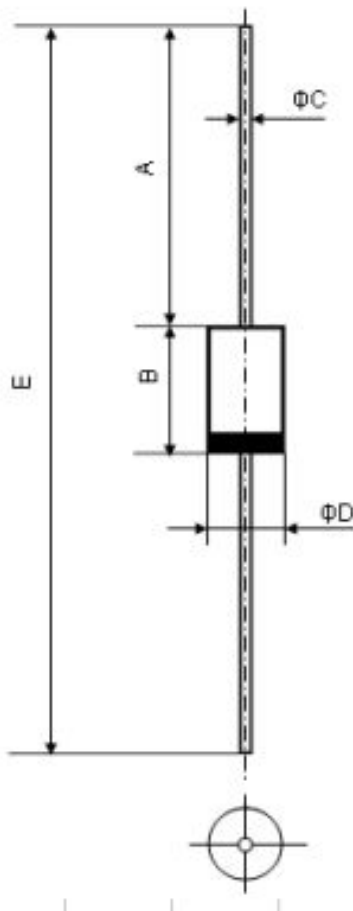
CJ vs VR





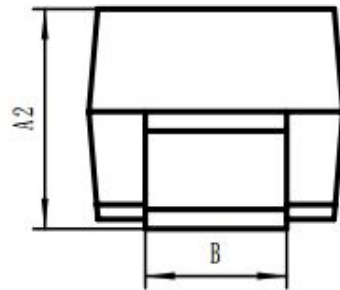
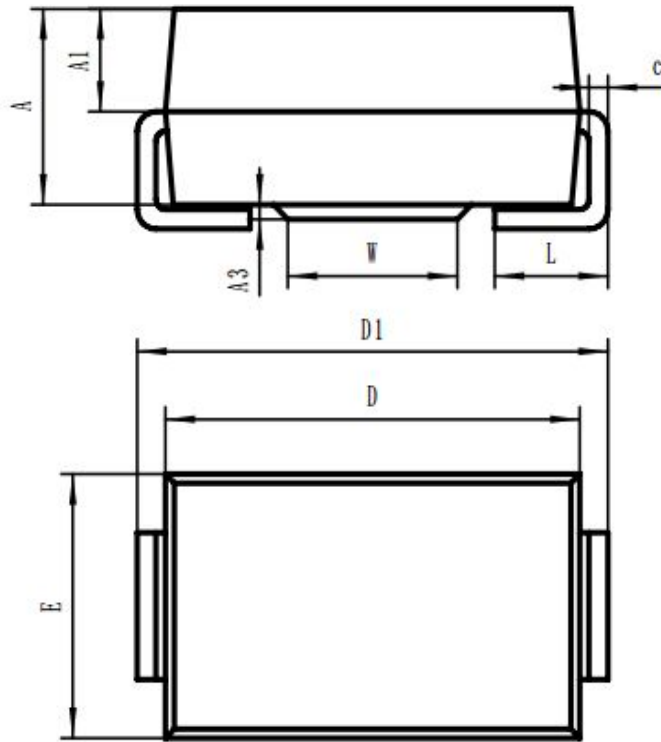
符号 [↗] symbol [↗]	Min [↗]	Max [↗]
A [↗]	25.4 [↗]	-- [↗]
B [↗]	4.2 [↗]	5.2 [↗]
C [↗]	0.7 [↗]	0.9 [↗]
D [↗]	2.0 [↗]	2.7 [↗]





符号 symbol	Min	Max
A	25.4	—
B	5.8	7.6
C	0.7	0.9
D	2.6	3.6





SYMBOL	MIN	MAX
A	1.80	2.20
A1	0.85	1.25
A2	1.90	2.60
A3	0.10	0.20
B	1.30	1.70
c	0.15	0.25
D	4.20	4.65
D1	4.70	5.30
E	2.50	2.90
L	0.85	1.55
W	1.60	2.00





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4. 本说明书如有版本变更不另外告知

NOTE

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2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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附录 (Appendix): 修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes
20151028	201405A	201510B	Corrected the mistakes.

