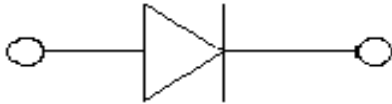


## Schottky Rectifier



### Features

- $V_R$  20V/30V/40V
- $I_{FAV}$  0.5A
- For Surface Voltage and Extremely Low Thermal Resistance
- Moisture Sensitivity Level 1

### Mechanical Data

- **Package:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:**

MBR0520	R2
MBR0530	R3
MBR0540	R4

### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	V		MBR0520	20
				MBR0530	30
				MBR0540	40
DC Blocking Voltage	$V_R$	V	$I_R=0.2mA$	MBR0520	20
				MBR0530	30
				MBR0540	40
Peak forward surge current	$I_{FSM}$	A	8.3ms, half sine	5.5	
Average forward current	$I_{FAV}$	A		0.5	
Power dissipation	$P_{tot}$	mW		410	
Thermal Resistance from junction to ambient(Note)	$R_{\theta JA}$	°C/W		244	
Maximum junction temperature	$T_j$	°C		-55 to +125	
Storage temperature range	$T_{stg}$	°C		-55 to +125	

Note: Device mounted on PCB

### ■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR0520	F2	Approximate 0.011	3000	30000	120000	7" reel
MBR0530	F2	Approximate 0.011	3000	30000	120000	7" reel
MBR0540	F2	Approximate 0.011	3000	30000	120000	7" reel



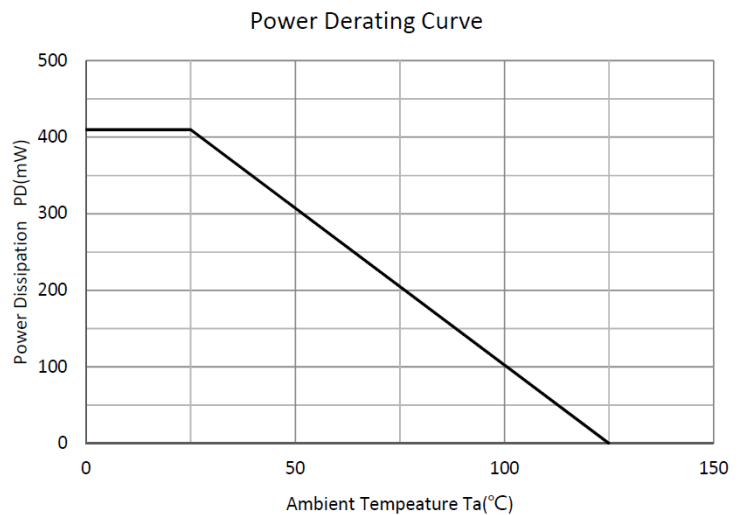
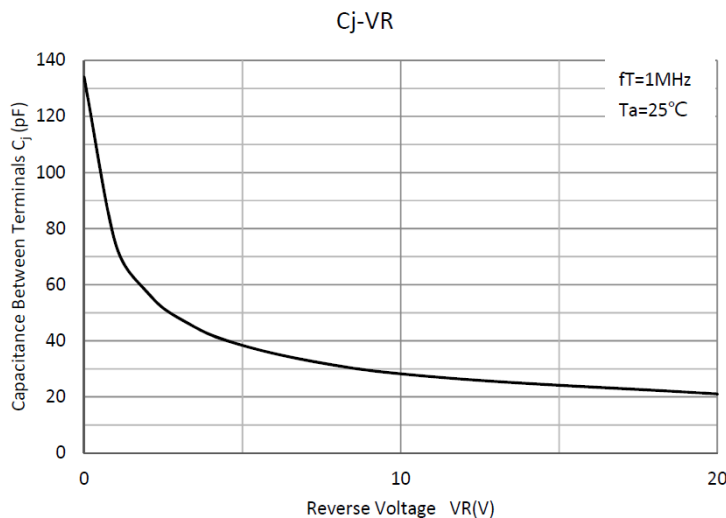
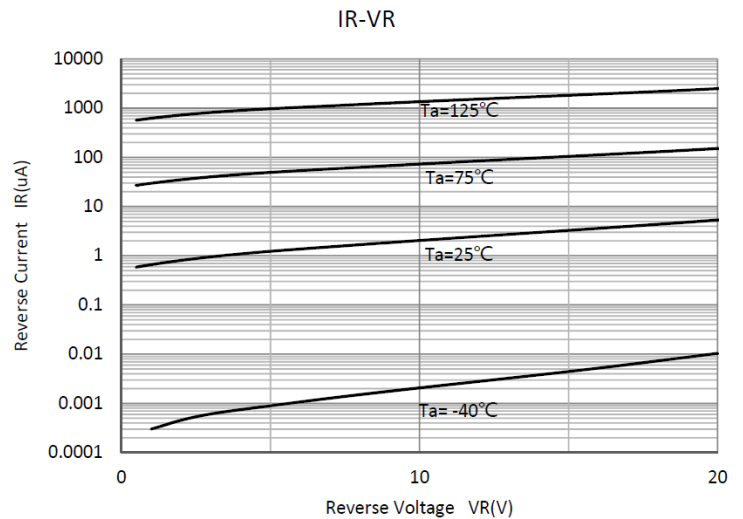
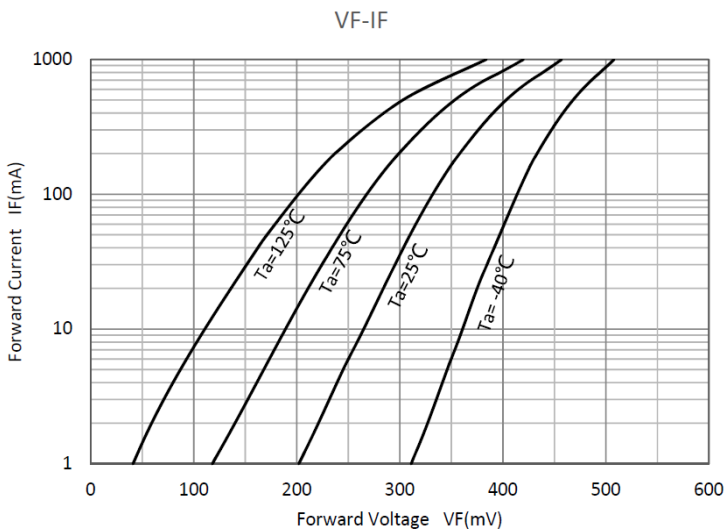
# MBR0520 THRU MBR0540

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Value	
Breakdown Voltage	V <sub>R</sub>	V	I <sub>R</sub> =0.2mA	MBR0520	20
				MBR0530	30
				MBR0540	40
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =0.5A,	MBR0520	0.45
				MBR0530	0.55
				MBR0540	0.55
Reverse Leakage Current (MAX)	I <sub>R</sub>	mA	V <sub>R</sub> =20V	MBR0520	0.2
			V <sub>R</sub> =30V	MBR0530	
			V <sub>R</sub> =40V	MBR0540	
Typical Junction Capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =4V, f=1MHz	40	

## ■ Characteristics (Typical)

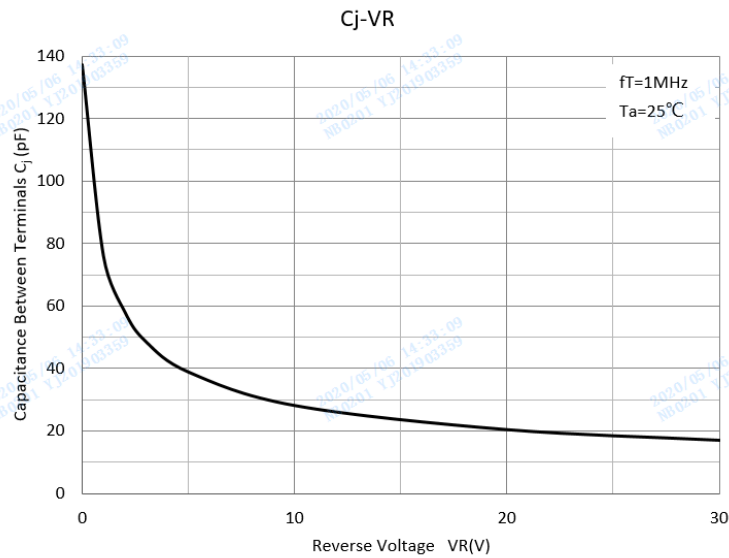
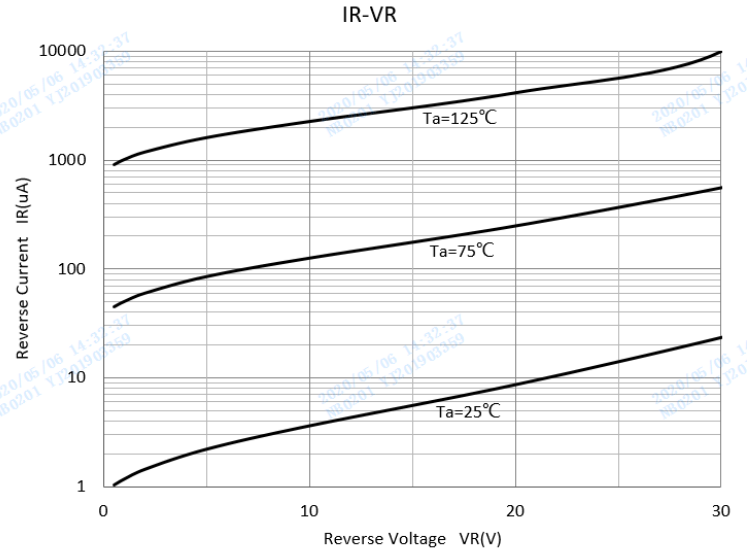
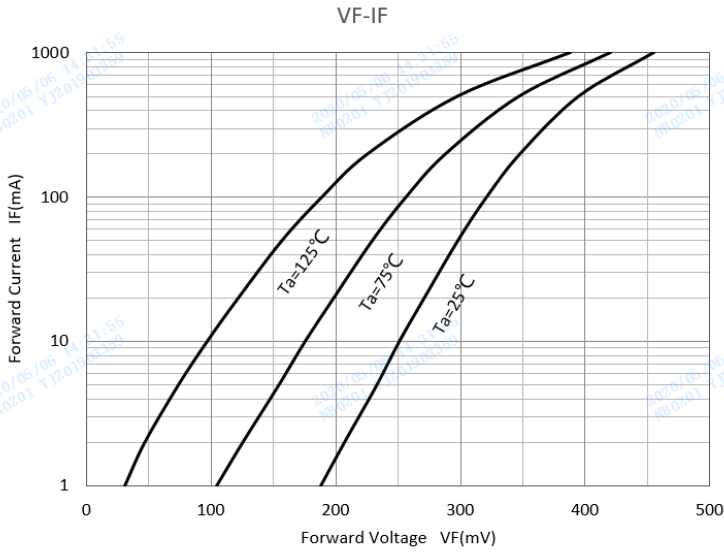
### MBR0520



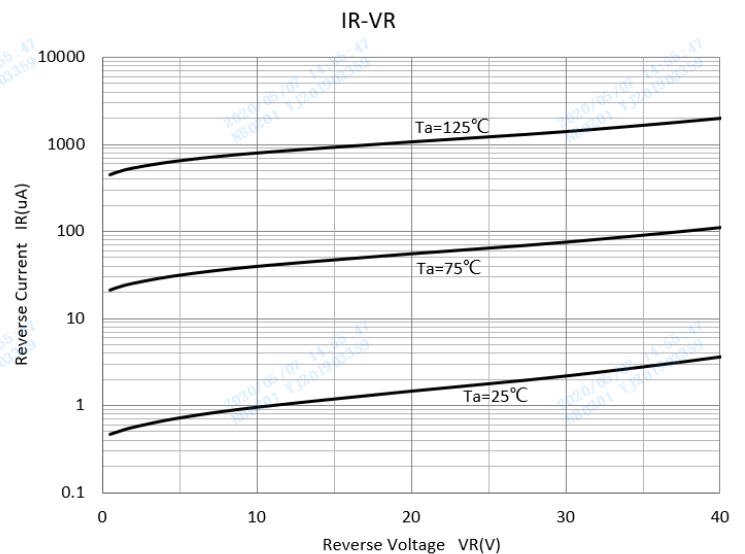
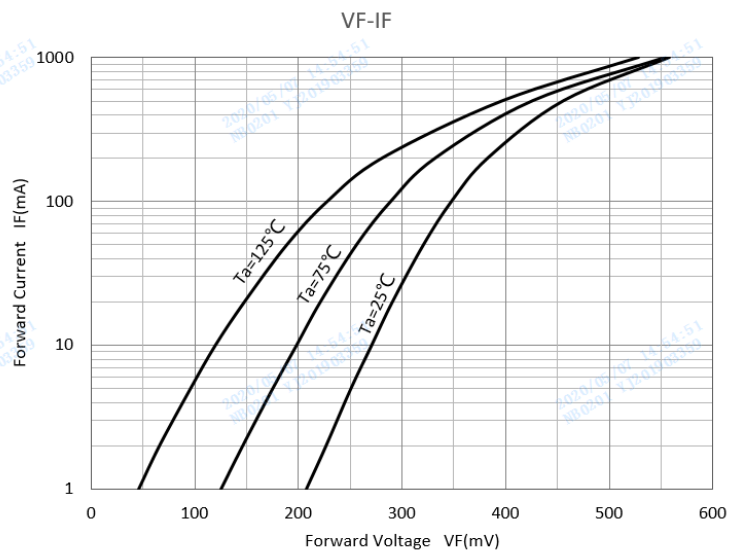


# MBR0520 THRU MBR0540

## MBR0530

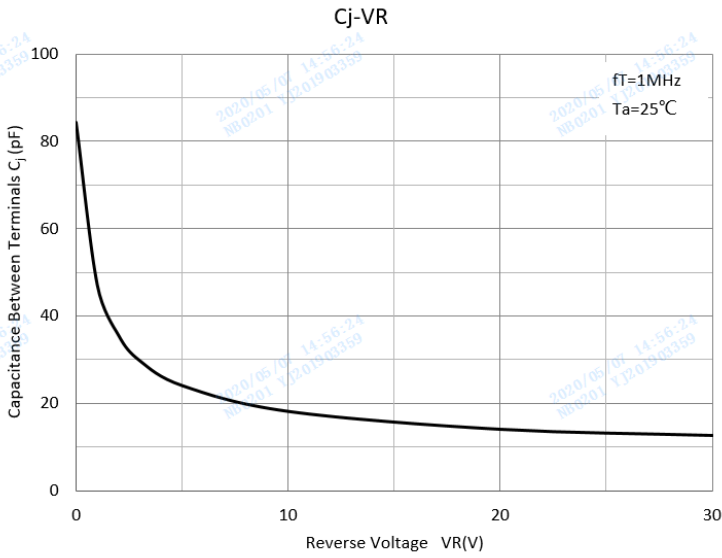


## MBR0540

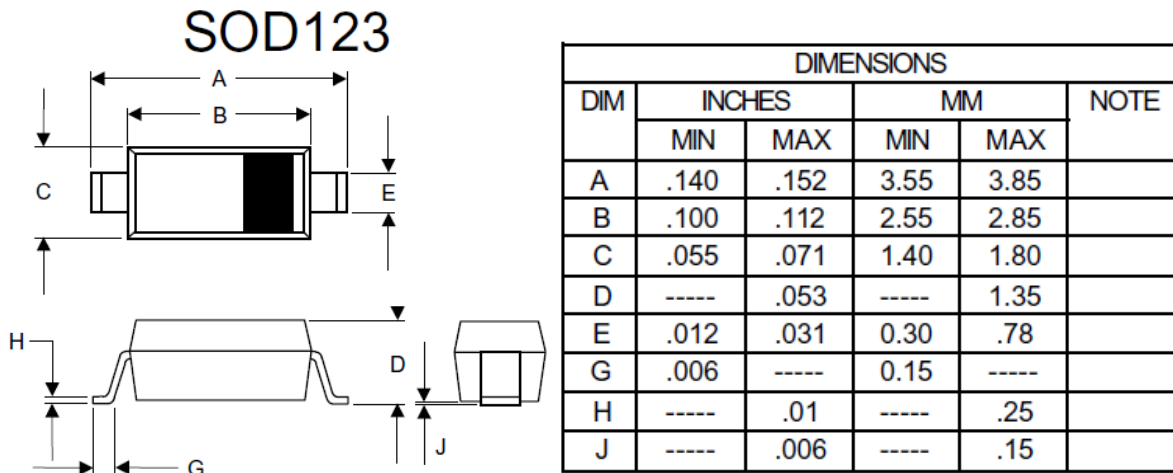




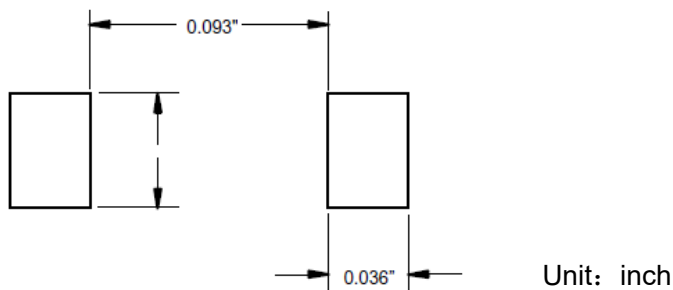
# MBR0520 THRU MBR0540



## ■ Outline Dimensions



## ■ Soldering Footprint





## MBR0520 THRU MBR0540

---

### Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.