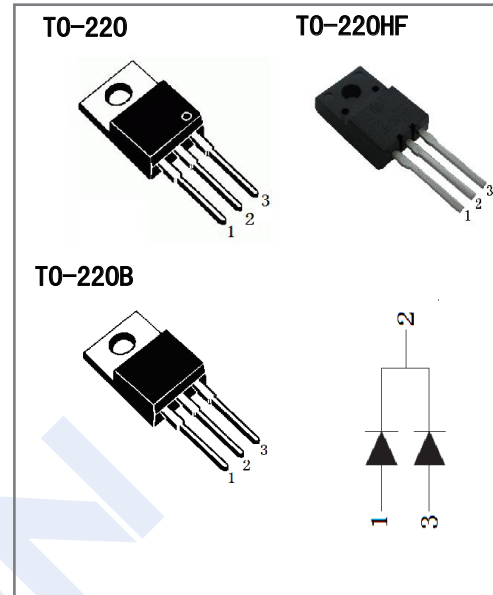


## Schottky Diodes

### MBR20100U

#### ■ Features

- Common cathode structure
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_{RM}$	100	V
DC blocking voltage	$V_{DC}$	100	
Average Forward Current ( $T_c=150^\circ\text{C}$ TO-220) ( $T_c=125^\circ\text{C}$ TO 220HF)	$I_{FAV}$	20 10	A
Peak Forward Surge Current	$I_{FSM}$	200	
Thermal Resistance Junction to Case TO-220 TO-220B TO-220HF	$R_{\theta JC}$	1.9 1.9 2.5	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	175	
Storage Temperature range	$T_{stg}$	-40 to 150	

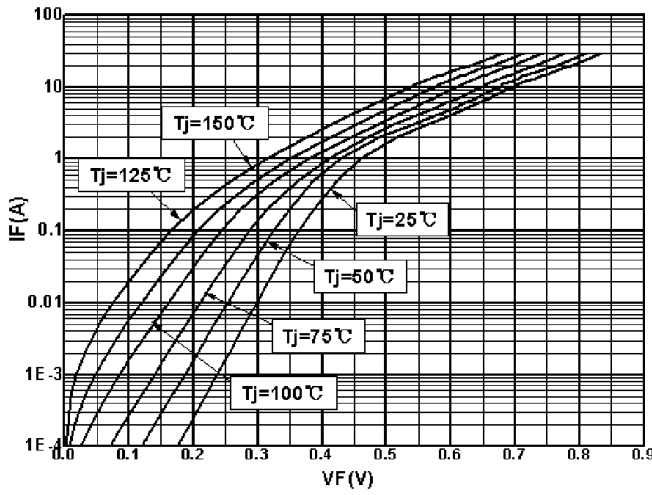
#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 10\text{ A}$ $T_J = 25^\circ\text{C}$		0.69	0.73	V
		$I_F = 10\text{ A}$ $T_J = 125^\circ\text{C}$		0.57	0.62	
		$I_F = 15\text{ A}$ $T_J = 25^\circ\text{C}$		0.75	0.8	
		$I_F = 15\text{ A}$ $T_J = 125^\circ\text{C}$		0.62	0.7	
Reverse voltage leakage current	$I_R$	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$			20	$\mu\text{A}$
		$V_R = V_{RRM}$ $T_J = 125^\circ\text{C}$			5	$\text{mA}$

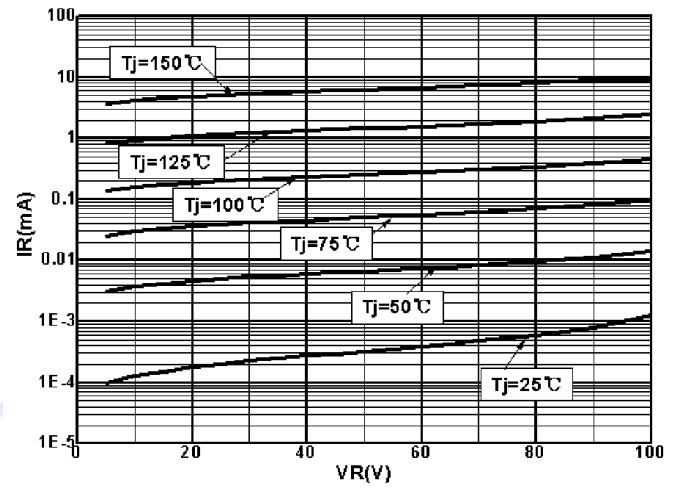
## Schottky Diodes MBR20100U

■ Typical Characteristics

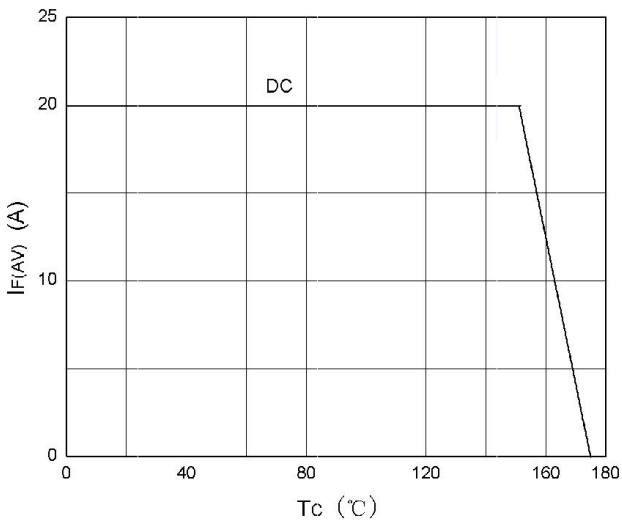
$I_F$  vs  $V_F$



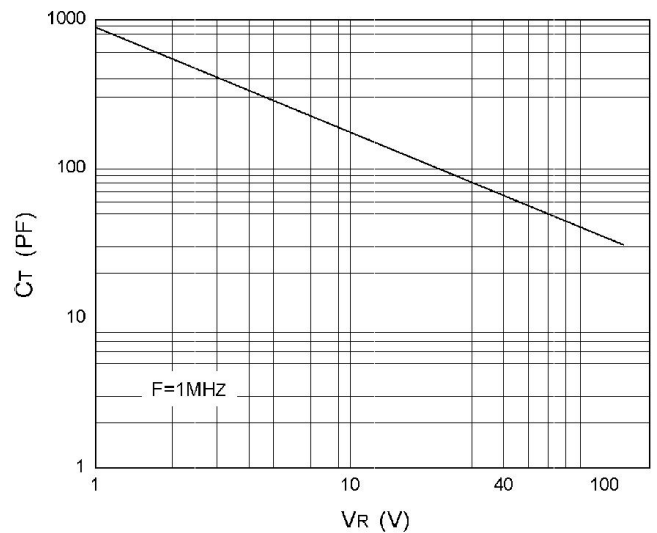
$I_R$  vs  $V_R$



$I_F(AV)$  vs  $T_C$



$C_T$  vs  $V_R$



### Schottky Diodes

### MBR20100U

■ Package size chart

