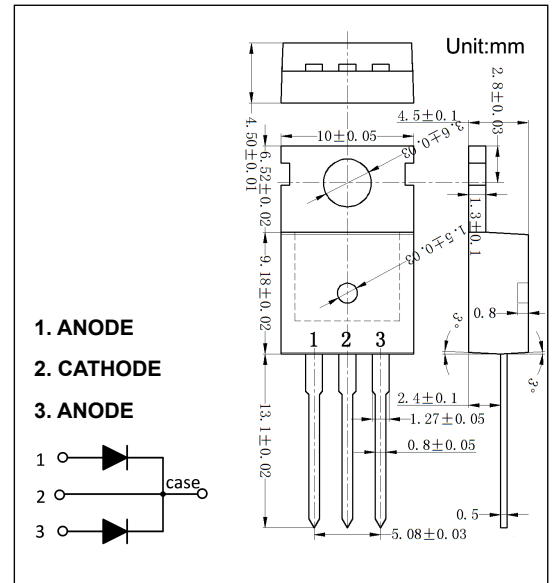


# TO-220 Plastic-Encapsulate Diodes

## 10100 Schottky Barrier Rectifier

### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



### Maximum Ratings ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{RRM}$	Peak repetitive reverse voltage	100	V
$V_{RWM}$	Working peak reverse voltage		
$V_R$	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	70	V
$I_o$	Average rectified output current @ $T_c=100^\circ\text{C}$	10	A
$I_{FSM}$	Non-Repetitive peak forward surge current 8.3ms half sine wave	120	A
$P_D$	Power dissipation	2	W
$R_{\theta JA}$	Thermal resistance from junction to ambient	50	$^\circ\text{C/W}$
$T_j$	Junction temperature	125	$^\circ\text{C}$
$T_{stg}$	Storage temperature	-55~+150	$^\circ\text{C}$

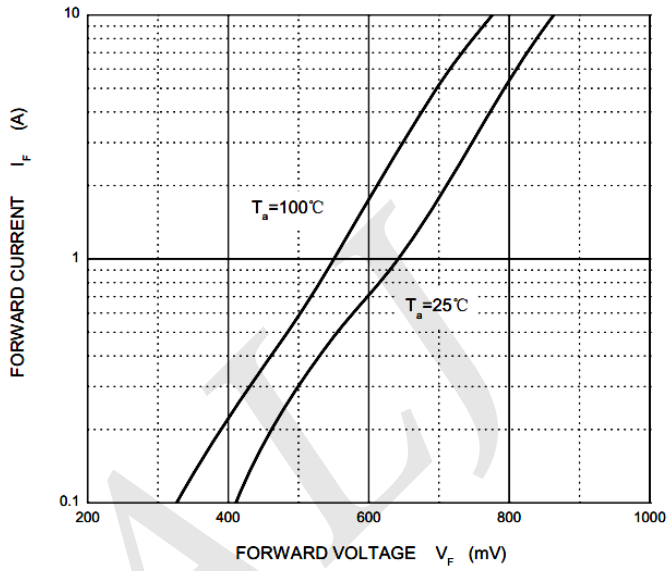
### Electrical Characteristics ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse voltage	$I_R=0.1\text{mA}$	100			V
$I_R$	Reverse current	$V_R=100\text{V}$			0.1	mA
$V_{F1}$	Forward voltage	$I_F=5\text{A}$			0.85	V
$V_{F2}^*$		$I_F=10\text{A}$			0.95	V
$C_{tot}$	Typical total capacitance	$V_R=4\text{V}, f=1\text{MHz}$		150		pF

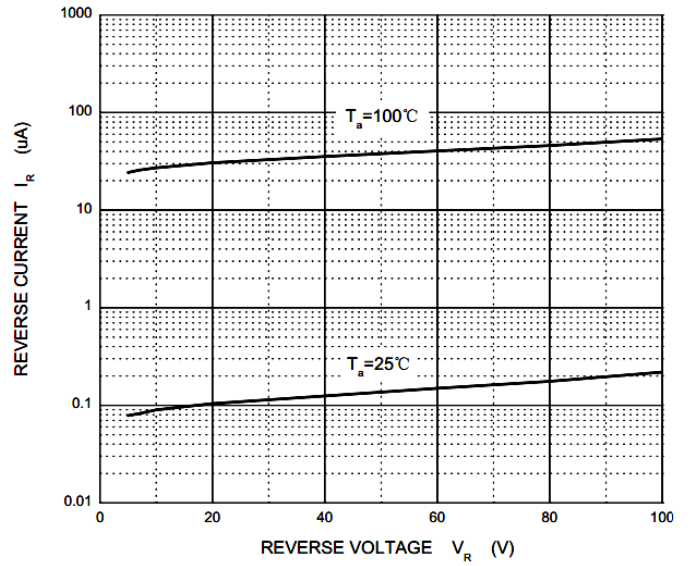
\* Pulse test

# Typical Characteristics

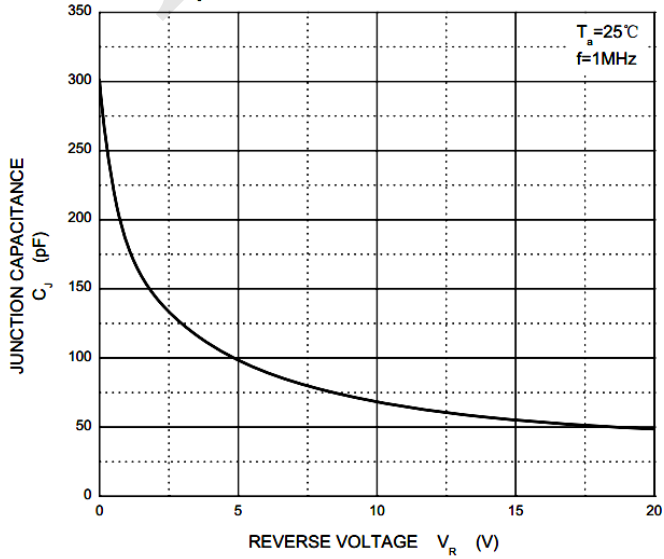
### Forward Characteristics



### Reverse Characteristics



### Capacitance Characteristics Per Diode



### Power Derating Curve

