

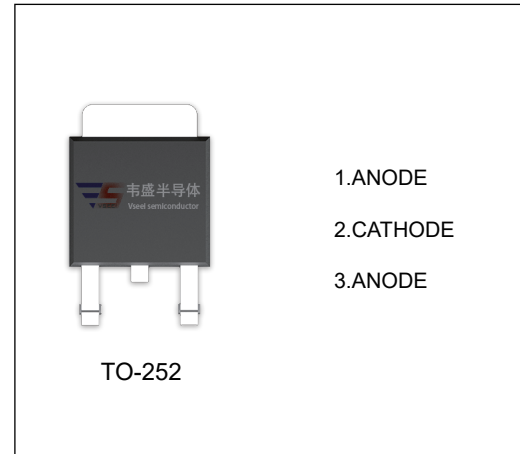
# SBDD10150CT SCHOTTKY BARRIER RECTIFIER

## MAIN CHARACTERISTICS

$I_O$	<b>10 (2×5) A</b>
$V_{RRM}$	<b>150 V</b>
$T_j$	<b>150 °C</b>
$V_{F(typ)}$	<b>0.69V (@T<sub>j</sub>=125°C)</b>

## FEATURES

- Low Power Loss,High Efficiency
- Guard Ring Die Construction for Transient Protection
- High Current Capability and Low Forward Voltage Drop



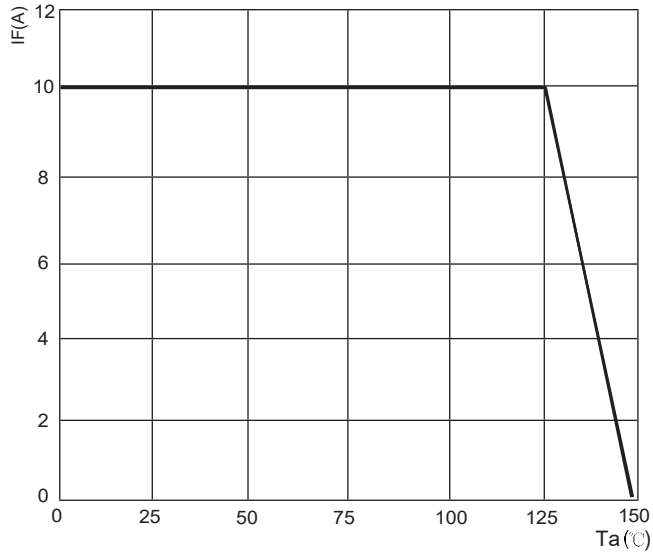
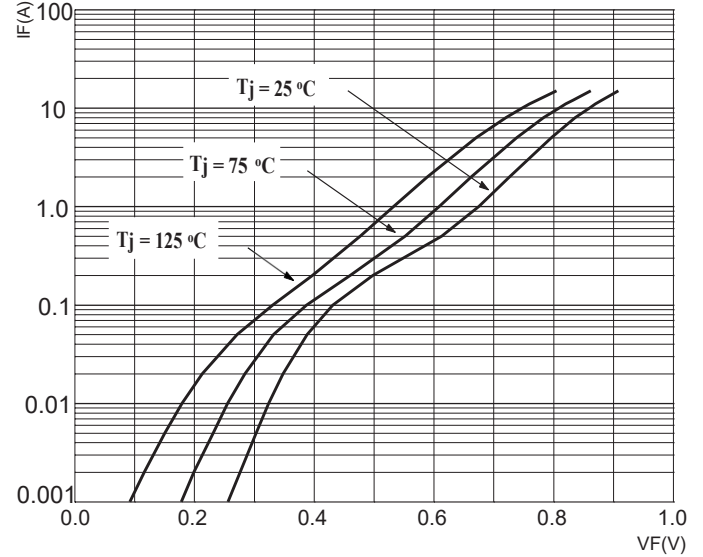
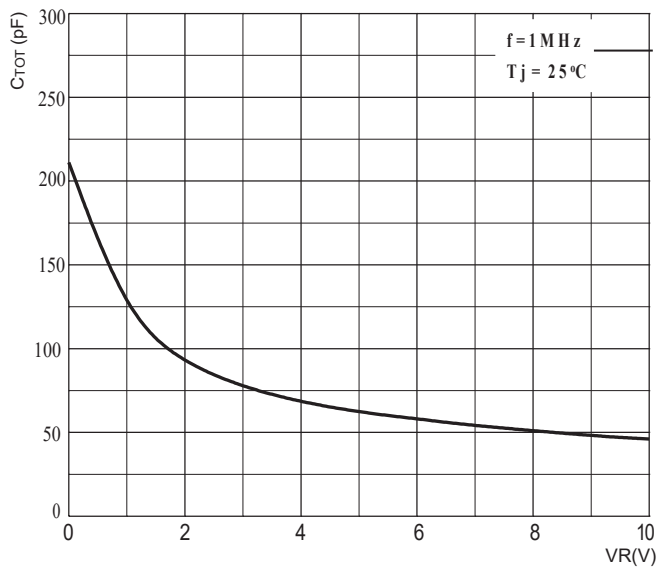
## MAXIMUM RATINGS ( T<sub>a</sub>=25°C unless otherwise noted )

Symbol	Parameter	Value	Unit
$V_{RRM}$	Peak repetitive reverse voltage	150	V
$V_{RWM}$	Working peak reverse voltage		
$V_R$	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	105	V
$I_O$	Average rectified output current	10	A
$I_{FSM}$	Non-Repetitive peak forward surge current (8.3ms half sine wave)	120	A
$R_{\theta JC}$	Thermal resistance from junction to case	5.0	°C/W
$R_{\theta JA}$	Thermal resistance from junction to ambient	100	°C/W
$T_j$	Junction temperature	150	°C
$T_{stg}$	Storage temperature	-55~+150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$	150			V
Reverse current	$I_R$	$V_R=150V$	T <sub>j</sub> =25°C	2.0	100	uA
			T <sub>j</sub> =125°C	2.0		mA
Forward voltage	$V_F$	$I_F=3A$	T <sub>j</sub> =25°C	0.78		V
			T <sub>j</sub> =125°C	0.64		V
		$I_F=5A$	T <sub>j</sub> =25°C	0.80	0.87	V
			T <sub>j</sub> =125°C	0.69		V

\*Pulse test: pulse width ≤300μs, duty cycles≤ 2.0%.

**FIG.1: FORWARD CURRENT DERATING CURVE**

**FIG.2: TYPICAL FORWARD CHARACTERISTICS**

**FIG.3: TOTAL CAPACITANCE DERATING CURVE**

**FIG.4: TYPICAL REVERSE CHARACTERISTICS**
