

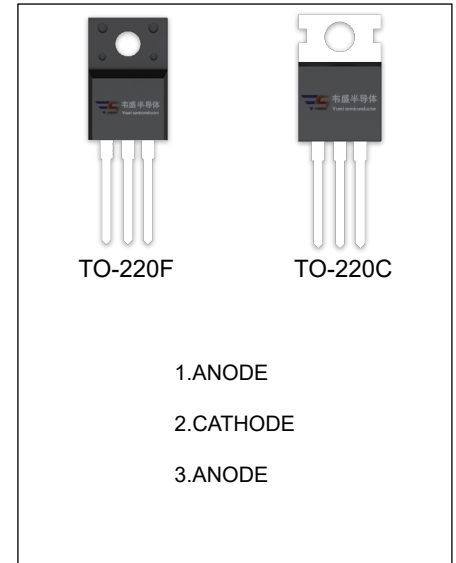
SBD30150TA、SBDF30150TA SCHOTTKY BARRIER RECTIFIER

MAIN CHARACTERISTICS

I_O	30A
V_{RRM}	150 V
T_j	150°C
$V_{F(typ)}$	0.76V (@Tj=125°C)

FEATURES

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



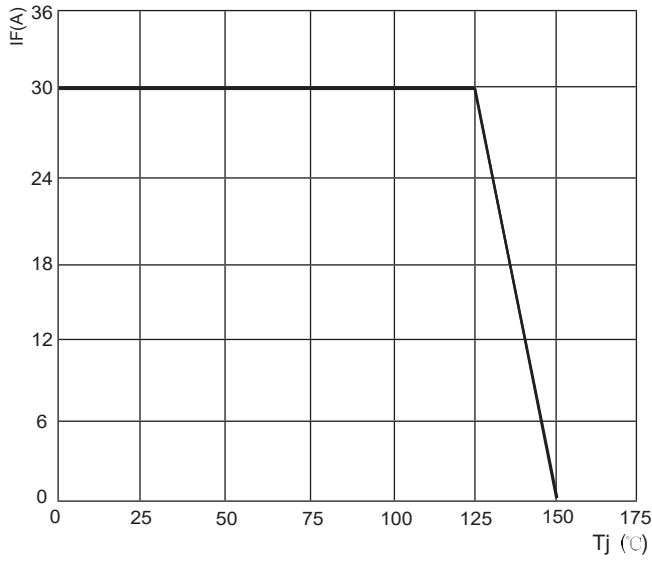
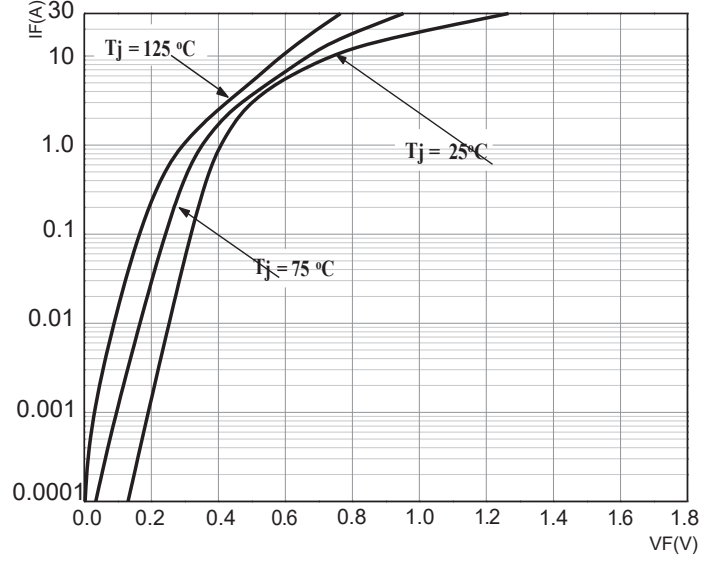
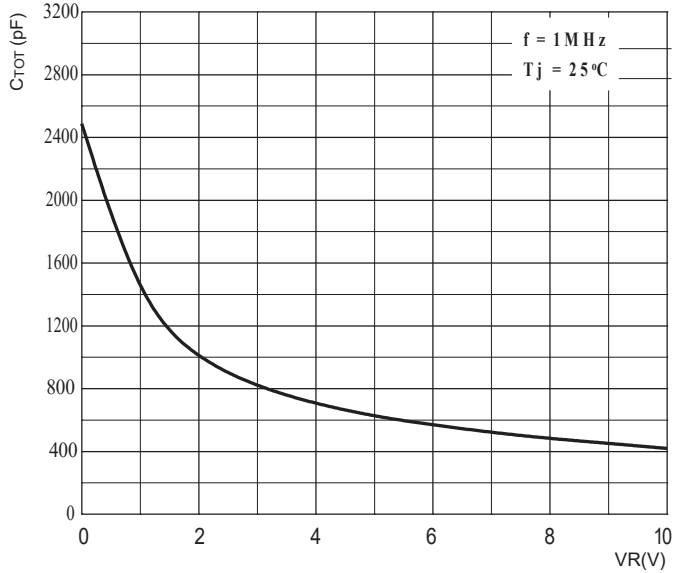
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	SBD		Unit
		30150TA	F30150TA	
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	30		A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)	300		A
$R_{\theta Jc}$	Thermal resistance from junction to case , $T_c=25^{\circ}\text{C}$	2.0	3.0	$^{\circ}\text{C}/\text{W}$
$R_{\theta JA}$	Thermal resistance from junction to ambient	62.5		$^{\circ}\text{C}/\text{W}$
T_j	Junction temperature	150		$^{\circ}\text{C}$
T_{stg}	Storage temperature	-55~+150		$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	150			V
Reverse current	I_R	$V_R=150\text{V}$	$T_j=25^{\circ}\text{C}$	10.0	30	μA
			$T_j=125^{\circ}\text{C}$	10.0		mA
Forward voltage	V_F	$I_F=15\text{A}$	$T_j=25^{\circ}\text{C}$	0.87		V
			$T_j=125^{\circ}\text{C}$	0.64		V
		$I_F=30\text{A}$	$T_j=25^{\circ}\text{C}$	1.25	1.30	V
			$T_j=125^{\circ}\text{C}$	0.76		V

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycles $\leq 2.0\%$.

FIG.1: FORWARD CURRENT DERATING CURVE

FIG.2: TYPICAL FORWARD CHARACTERISTICS

FIG.3: TOTAL CAPACITANCE DERATING CURVE

FIG.4: TYPICAL REVERSE CHARACTERISTICS
