

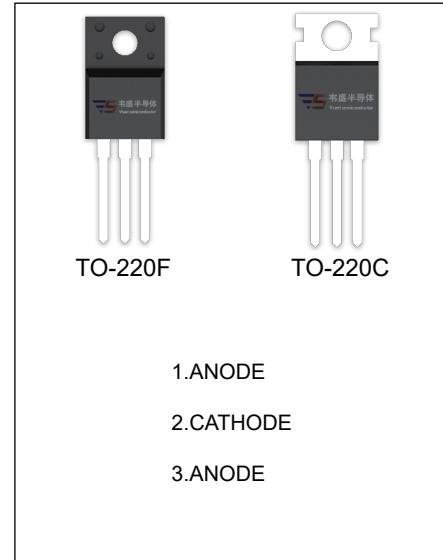
SBD20150LCTB、SBDF20150LCTB SCHOTTKY BARRIER RECTIFIER

MAIN CHARACTERISTICS

I_o	20 (2x10) A
V_{RRM}	150 V
T_j	150 °C
$V_F(\text{typ})$	0.64V (@ $T_j=125^\circ\text{C}$)

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
		20150LCTB	F20150LCTB	
V_{RRM}	Peak repetitive reverse voltage			
V_{RWM}	Working peak reverse voltage		150	V
V_R	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage		105	V
I_o	Average rectified output current		20	A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)		150	A
$R_{\Theta Jc}$	Thermal resistance from junction to case, $T_c=25^\circ\text{C}$	2.0	3.0	°C/W
$R_{\Theta JA}$	Thermal resistance from junction to ambient		62.5	°C/W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~+150	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	150			V
Reverse current	I_R	$V_R=150\text{V}$	$T_j = 25^\circ\text{C}$	5.0	100	μA
			$T_j = 125^\circ\text{C}$	5.0		mA
Forward voltage	V_F	$I_F=5\text{A}$	$T_j = 25^\circ\text{C}$	0.72		V
			$T_j = 125^\circ\text{C}$	0.57		V
		$I_F=10\text{A}$	$T_j = 25^\circ\text{C}$	0.78	0.85	V
			$T_j = 125^\circ\text{C}$	0.64		V

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

FIG.1: FORWARD CURRENT DERATING CURVE

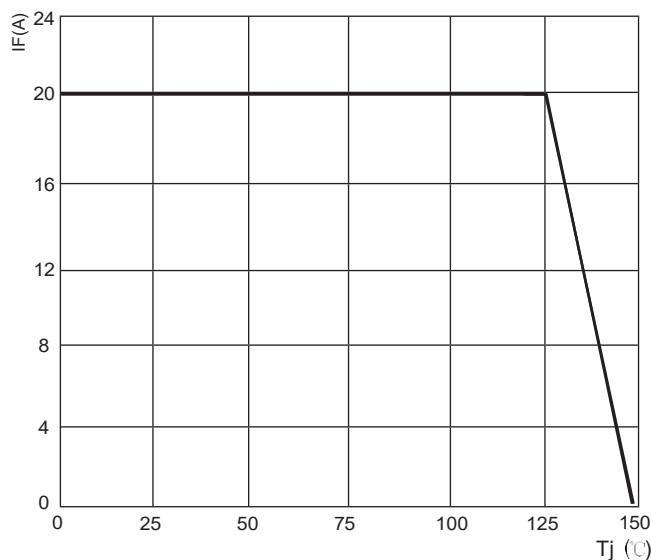


FIG.2: TYPICAL FORWARD CHARACTERISTICS

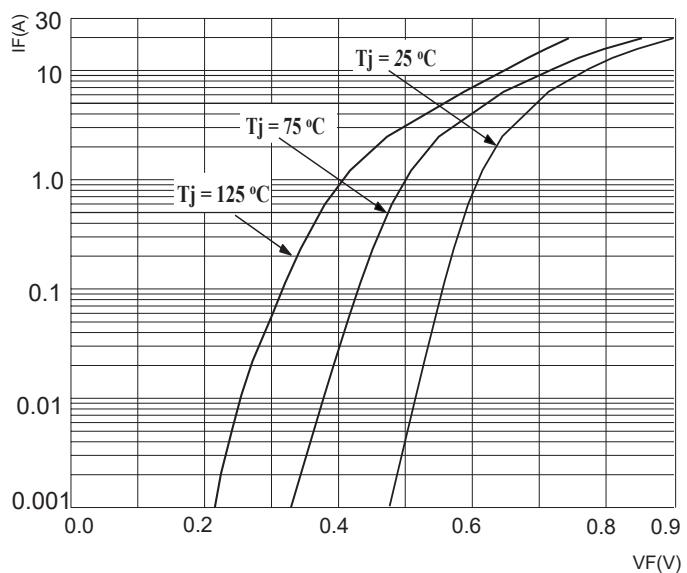


FIG.3: TOTAL CAPACITANCE DERATING CURVE

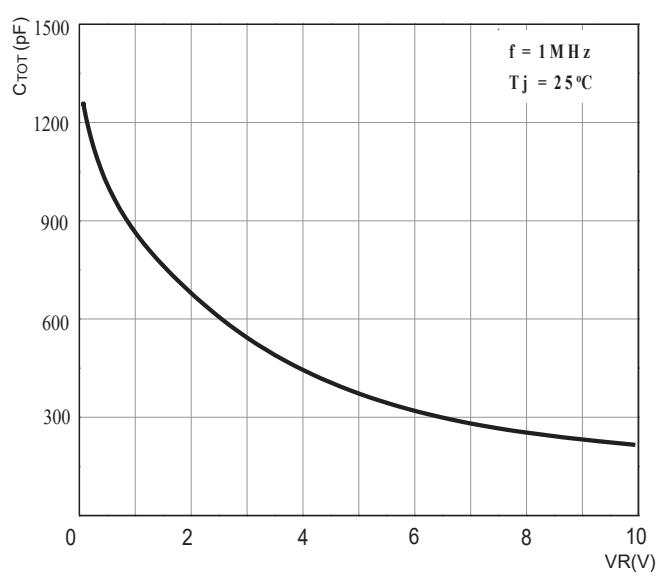


FIG.4: TYPICAL REVERSE CHARACTERISTICS

