

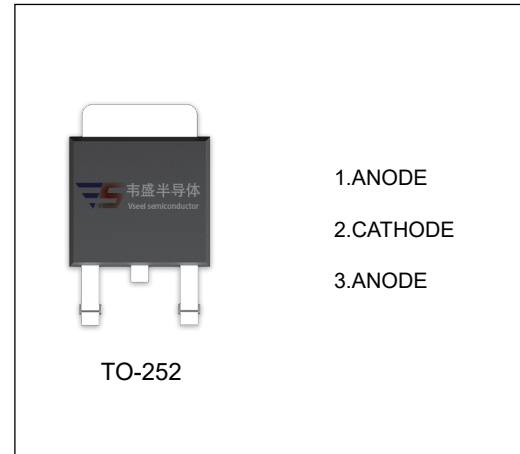
SBDD2045CT SCHOTTKY BARRIER RECTIFIER

MAIN CHARACTERISTICS

I_O	20 (2×10) A
V_{RRM}	45 V
T_j	150 °C
$V_{F(typ)}$	0.51V (@ $T_j=125^{\circ}C$)

FEATURES

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



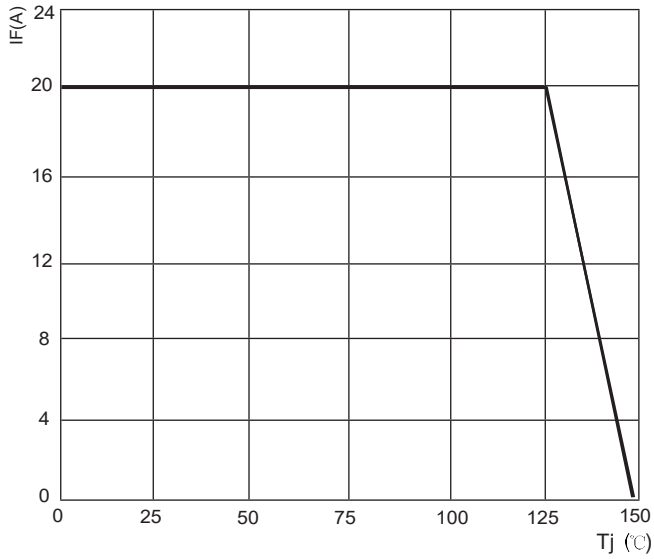
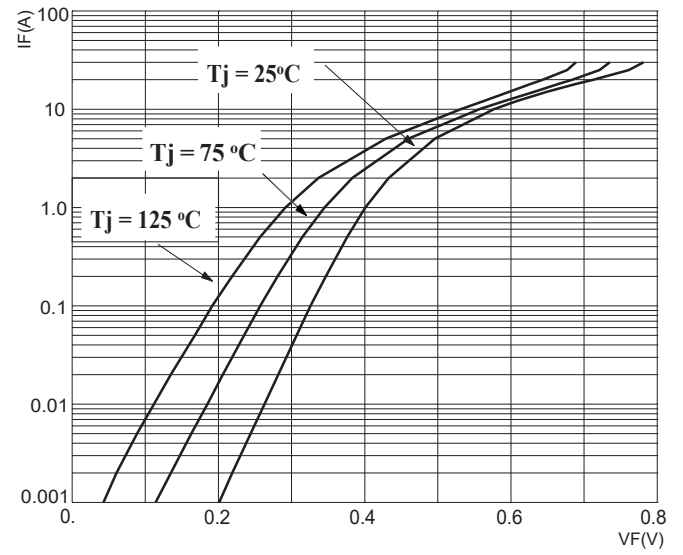
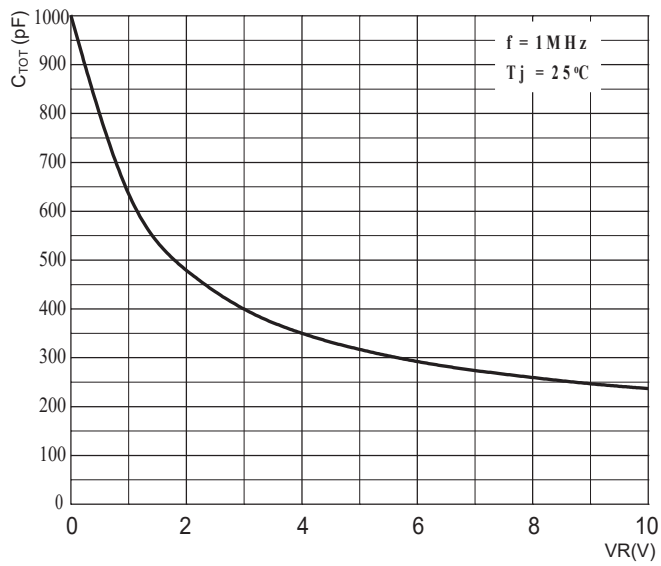
MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	45	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	31.5	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	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 ($T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$	45			V
Reverse current	I_R	$V_R=45V$	$T_j=25^{\circ}C$	10	100	uA
			$T_j=125^{\circ}C$	10		mA
Forward voltage	V_F	$I_F=5A$	$T_j=25^{\circ}C$	0.50		V
			$T_j=125^{\circ}C$	0.43		V
		$I_F=10A$	$T_j=25^{\circ}C$	0.59	0.65	V
			$T_j=125^{\circ}C$	0.51		V

*Pulse test: pulse width $\leq 300\mu s$, 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
