鼎德丰 DING DE FENG

MBR20150CS

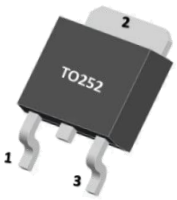
SCHOTTKY BARRIER RECTIFIER

■ DESCRIPTION

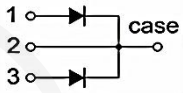
The MBR20150CT meet the ROHS and Green Product requirement with full function reliability approved.

■ FEATURE

*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



1. ANODE
2. CATHODE
3. ANODE



■ ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak repetitive reverse voltage	150	V
V_{RWM}	Working peak reverse voltage	150	V
V_R	DC blocking voltage	150	V
$V_{R(RMS)}$	RMS reverse voltage	105	V
I_O	Average rectified output current	20（10*2）	A
I_{FSM}	Non-Repetitive peak forward surge current	150*2	A
Tj	Junction temperature	175	°C
Tstg	Storage temperature	-55 ~ +150	°C
Cj (Ctot)	Typical total capacitance V_R=5V,f=1MHz	500	pF
$R_{\theta JA}$	Thermal Resistance fromJunction to Ambient	100	°C/W
$R_{\theta JC}$	Thermal Resistance From Junction To Case	5	°C/W

Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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■ ELECTRICAL CHARACTERISTICS (TA=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	Tj =25℃		0.5	5	uA
			Tj =125℃		2.0		mA
Forward voltage	V_F	I_F=5A	Tj =25℃		0.76		V
			Tj =125℃		0.64		V
		I_F=10A	Tj =25℃		0.83	0.90	V
			Tj =125℃		0.71		V
Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.							

■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

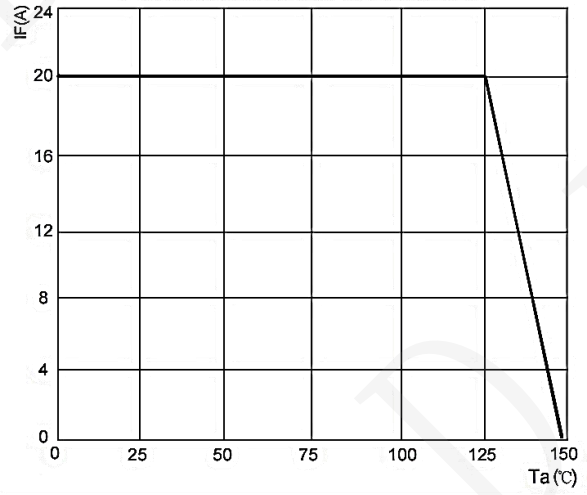


FIG.2: TYPICAL FORWARD CHARACTERISTICS

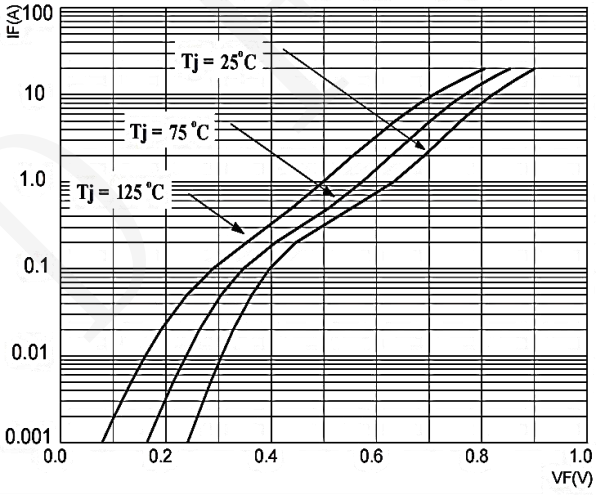


FIG.3: TOTAL CAPACITANCE DERATING CURVE

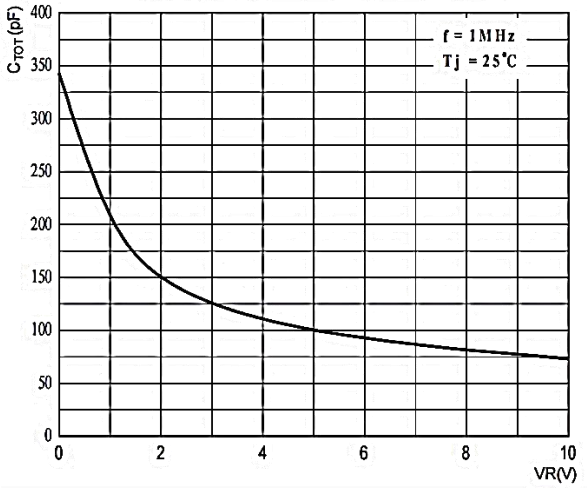
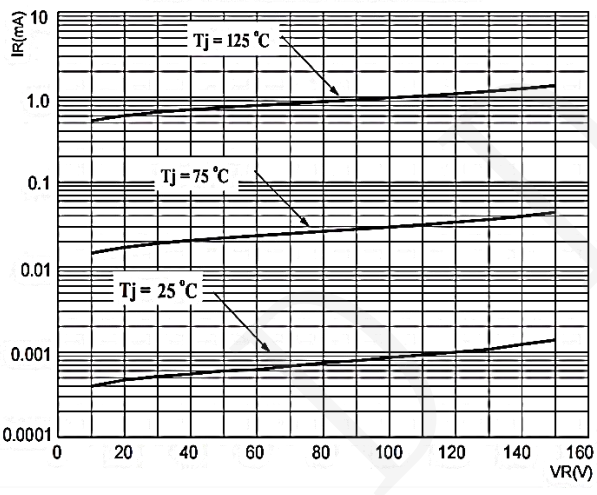


FIG.4: TYPICAL REVERSE CHARACTERISTICS



■ TO - 252 Package Outline Dimensions