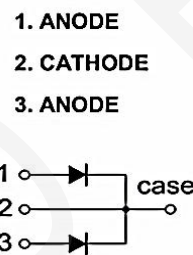
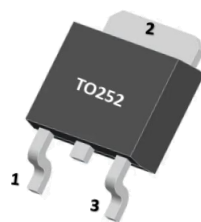


### DESCRIPTION

The MBR10100CS 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



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

SYMBOL	PARAMETER	VALUE	UNIT
VRRM	Peak repetitive reverse voltage	100	V
VRWM	Working peak reverse voltage	100	V
VR	DC blocking voltage	100	V
VR(RMS)	RMS reverse voltage	70	V
IO	Average rectified output current	10 (5*2)	A
IFSM	Non-Repetitive peak forward surge current( 8.3ms half sine wave)	100*2	A
Tj	Junction temperature	175	°C
Tstg	Storage temperature	-55 ~ +150	°C
RθJA	Thermal Resistance fromJunction to Ambient	110	°C/W
RθJC	Thermal Resistance From Junction To Case	6	°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.

### ■ ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Reverse voltage	V <sub>(BR)</sub>	I <sub>R</sub> =0.1mA		100			V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =100V			1	5	uA
Forward voltage	V <sub>F1</sub>	I <sub>F</sub> =3A	T <sub>j</sub> =25°C		0.70		V
	V <sub>F2</sub>	I <sub>F</sub> =5A	T <sub>j</sub> =25°C		0.77	0.82	V
	V <sub>F3</sub>	I <sub>F</sub> =10A	T <sub>j</sub> =25°C			0.95	V

Notes: 1. Short duration pulse test used to minimize self-heating effect.  
 2. Thermal resistance junction to case mounted on heatsink.

### ■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

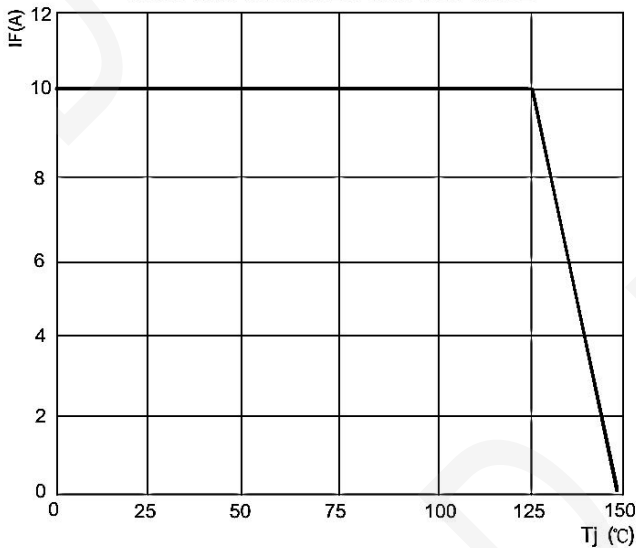


FIG.2: TYPICAL FORWARD CHARACTERISTICS

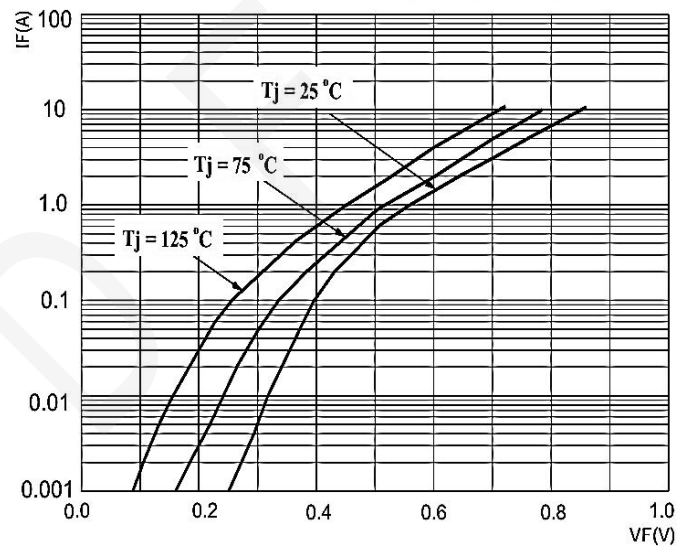


FIG.3: TOTAL CAPACITANCE DERATING CURVE

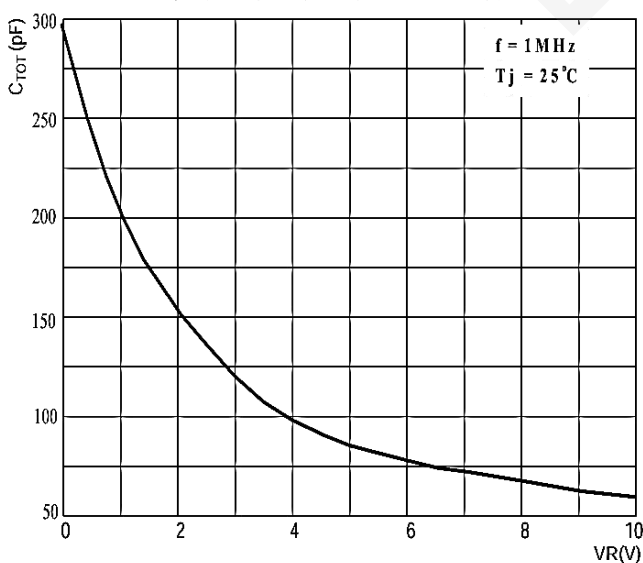


FIG.4: TYPICAL REVERSE CHARACTERISTICS

