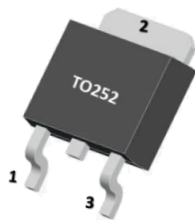


### ■ DESCRIPTION

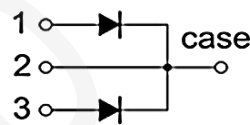
The MBR2065CS meet the ROHS and Green Product requirement with full function reliability approved.

### ■ FEATURE

- \*High Surge Capacity
- \*For Use In Low Voltage,High Frequency Inverters, Free Wheeling and Polarity Protection Applications.
- \*Metal Silicon Junction, Majority Carrier Conduction.
- \*High Current Capacity, Low Forward Voltage Drop.
- \*Guard Ring for Over Voltage Protection.



1. ANODE
2. CATHODE
3. ANODE



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

SYMBOL	PARAMETER	VALUE	UNIT
VRRM	Peak repetitive reverse voltage	65	V
VRWM	Working peak reverse voltage	65	V
VR	DC blocking voltage	65	V
VR(RMS)	RMS reverse voltage	45.5	V
IO	Average rectified output current	20 (10*2)	A
IFSM	Non-Repetitive peak forward surge current	150*2	A
Tj	Junction temperature	150	°C
Tstg	Storage temperature	-55 ~ +150	°C
RθJA	Thermal Resistance from Junction to Ambient	100	°C/W
RθJC	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.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	V(BR)	I <sub>R</sub> =0.1mA	65			V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =65V	T <sub>j</sub> =25°C		50	uA
			T <sub>j</sub> =125°C		5.0	mA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =5A	T <sub>j</sub> =25°C	0.60		V
			T <sub>j</sub> =125°C	0.54		V
		I <sub>F</sub> =10A	T <sub>j</sub> =25°C	0.72	0.75	V
			T <sub>j</sub> =125°C	0.62		V

\*Pulse test: pulse width ≤300μs, duty cycles ≤ 2.0%

### ■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

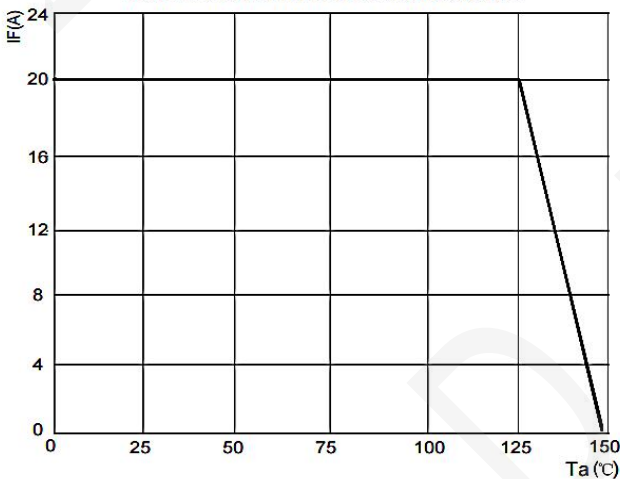


FIG.2: TYPICAL FORWARD CHARACTERISTICS

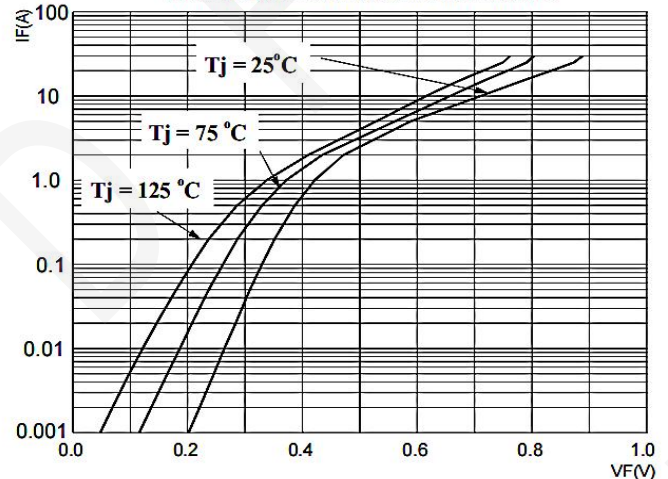


FIG.3: TOTAL CAPACITANCE DERATING CURVE

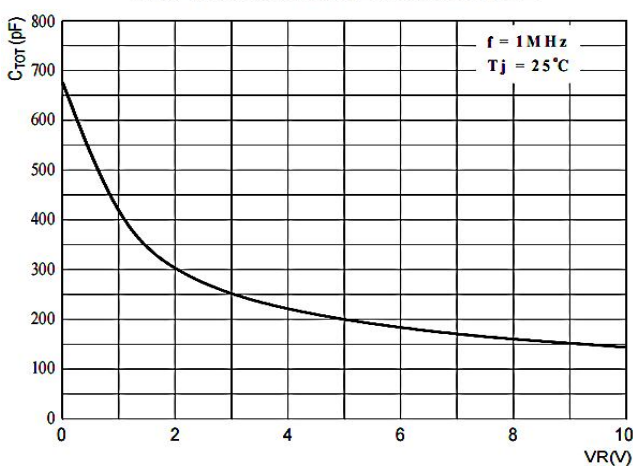


FIG.4: TYPICAL REVERSE CHARACTERISTICS

