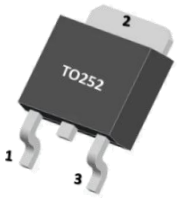
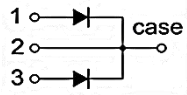
■ DESCRIPTION

The MBR20100CS meet the ROHS and Green Product requirement with full function reliability approved.



1. ANODE
2. CATHODE
3. ANODE



■ 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		20（10*2）	A
IFSM	Non-Repetitive peak forward surge current(8.3ms half sine wave)		150*2	A
Tj	Junction temperature		175	°C
Tstg	Storage temperature		-55 ~ +150	°C
Cj (Ctot)	Typical total capacitance(VR=5V,f=1MHz)		500	pF
RθJA	Thermal Resistance fromJunction to Ambient	TO-252	100	°C/W
		TO-220F	58	
RθJC	Thermal Resistance From Junction To Case	TO-252	5	°C/W
		TO-220F	3	

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 R=0.2mA		100			V
Reverse current	I R	VR=100V	Tj =25℃			5	uA
			Tj =125℃		5.0		mA
Forward voltage	VF	I F=5A	Tj =25℃			0.8	V
			Tj =125℃		0.60		V
		I F=10A	Tj =25℃			0.95	V
			Tj =125℃		0.68		V
*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%							

■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

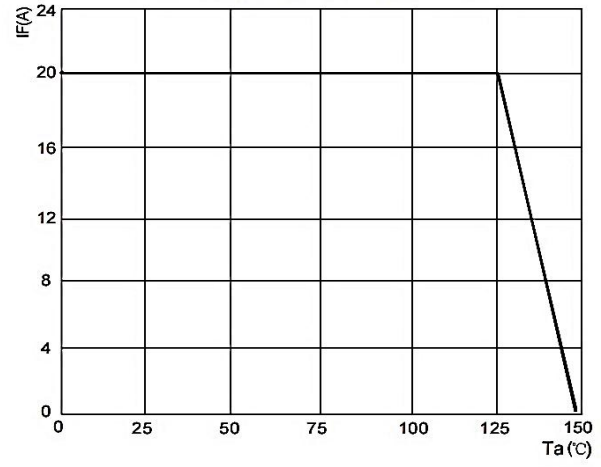


FIG.2: TYPICAL FORWARD CHARACTERISTICS

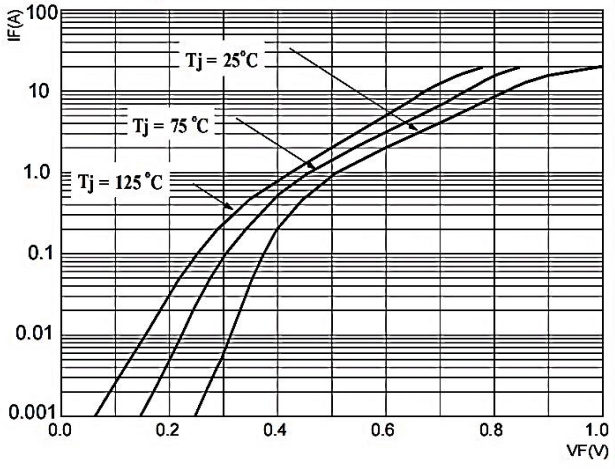


FIG.3: TOTAL CAPACITANCE DERATING CURVE

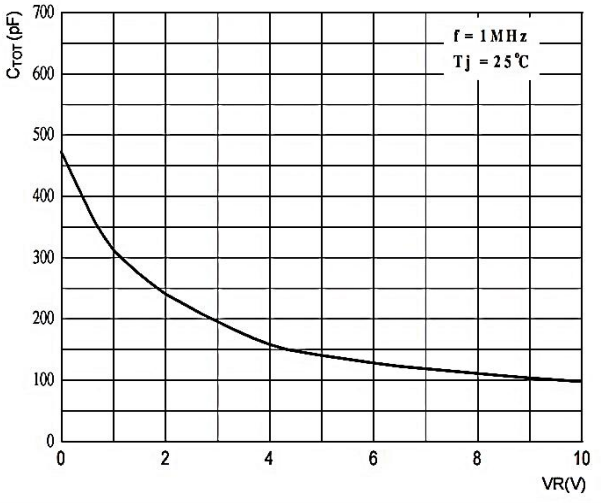
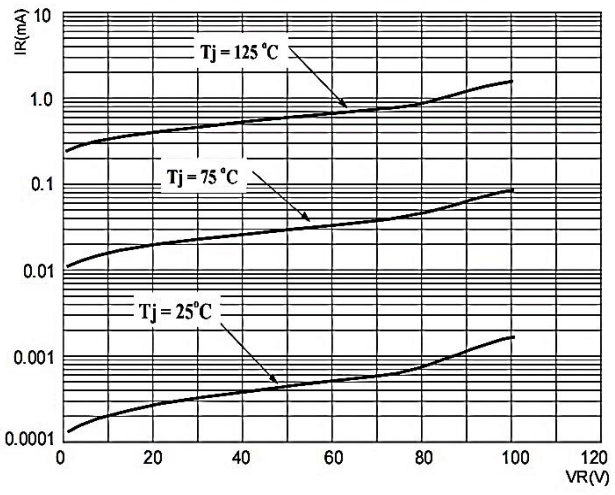
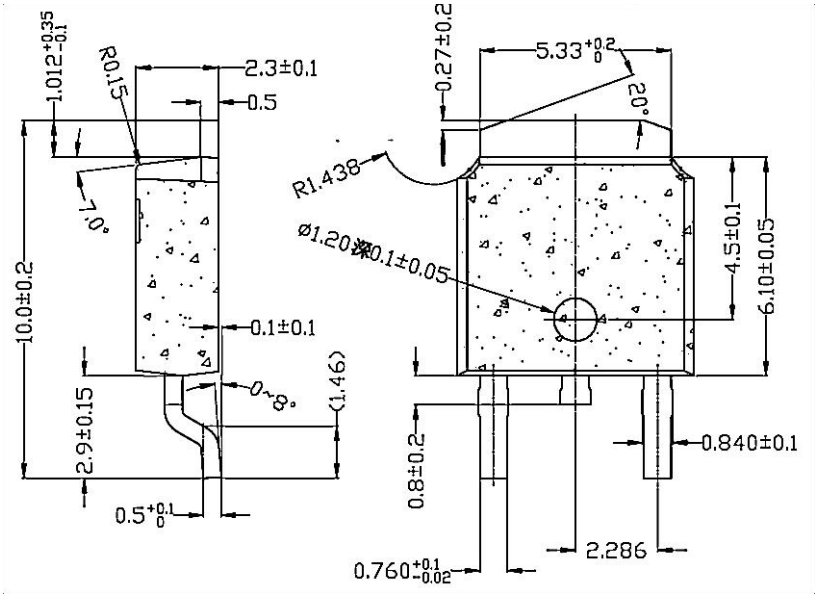
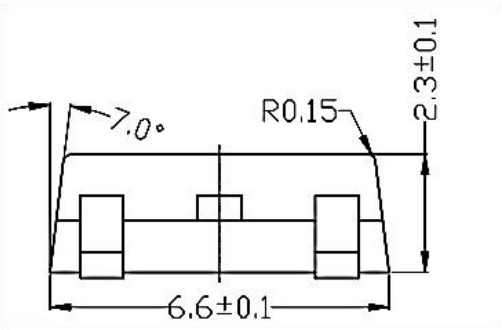


FIG.4: TYPICAL REVERSE CHARACTERISTICS



■ TO - 252 Package Outline Dimensions





Package version	Reel dimensions Φ×H (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions L×W×H(mm)	Outer box (pcs)	Outer box dimensions L×W×H (mm)
TO-252	Φ330*20	2500	2	360*340*50	25000	375*375*280