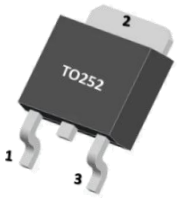
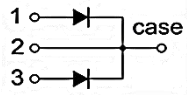
■ DESCRIPTION

The MBR10150CS 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		150	V
VRWM	Working peak reverse voltage		150	V
VR	DC blocking voltage		150	V
VR(RMS)	RMS reverse voltage		105	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	TO-252	100	°C/W
		TO-220F	60	
RθJC	Thermal Resistance From Junction To Case	TO-252	6	°C/W
		TO-220F	4	

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)	IR=0.2mA		150			V
Reverse current	IR	VR=150V				100	μA
Forward voltage	VF1	IF=3A	Tj=25℃		0.75		V
	VF2	IF=5A	Tj=25℃			1	V
	VF3	IF=10A	Tj=25℃			1	V
Typical total capacitance	Ctot	VR=5V,f=1MHz			500		pF

*Notes:1. Short duration on pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

3. Pulse test pulse width ≤300μs, duty cycle≤2.0%.

■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

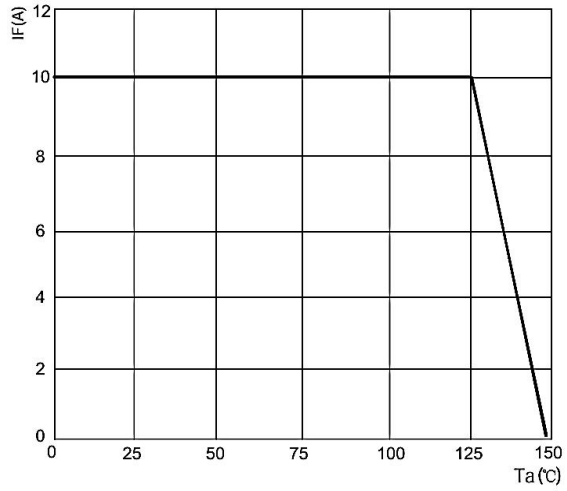


FIG.2: TYPICAL FORWARD CHARACTERISTICS

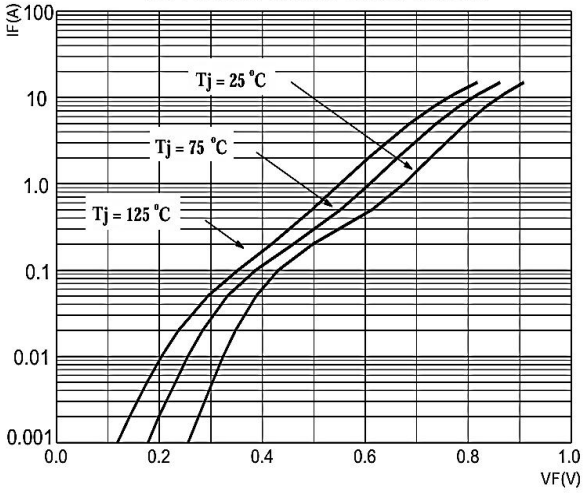


FIG.3: TOTAL CAPACITANCE DERATING CURVE

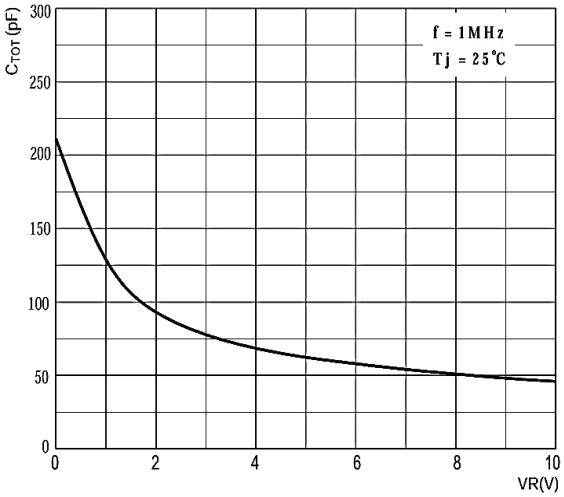
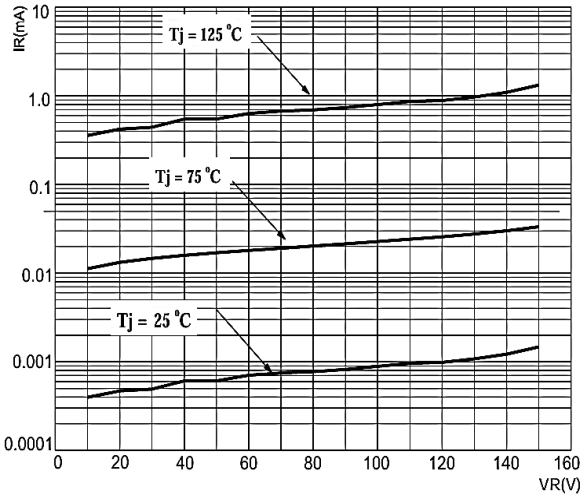
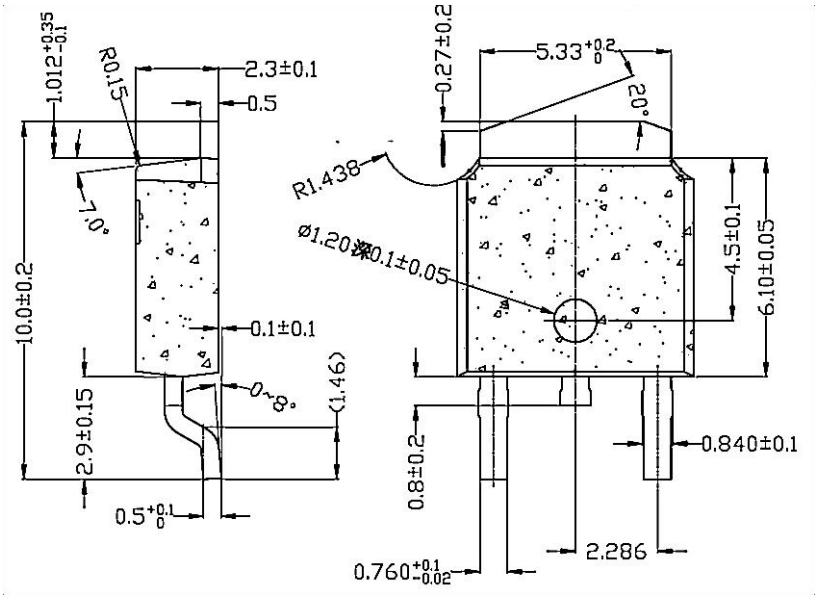
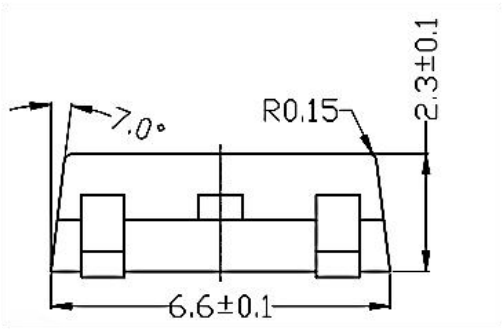


FIG.4: TYPICAL REVERSE CHARACTERISTICS



■ TO - 252 Package Outline Dimensions





■ TO - 252 Packing Information

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