

MBR30100CS

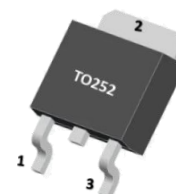
SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

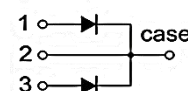
The MBR30100CS meet the ROHS and Green Product requirement with full function reliability approved.

FEATURE

- * Low Power Loss,High Efficiency
- * Guard Ring Die Construction for Transient Protection
- * High Current Capability and Low Forward Voltage Drop



1. ANODE
2. CATHODE
3. ANODE



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			V
VR	DC blocking voltage			V
VR(RMS)	RMS reverse voltage		70	V
IO	Average forward rectified output current		30(15*2)	A
IFSM	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		200*2	A
Tj	Junction temperature		175	°C
Tstg	Storage temperature		-55~+150	°C
RθJA	Thermal Resistance fromJunction to Ambient	TO-252	62.5	°C/W
			62.5	
RθJC	Thermal Resistance From Junction To Case	TO-220F	3	°C/W
			2	

Note: 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	100			V
Instantaneous Reverse Current	IR	VR=100V	Tj=25°C		100	μA
			Tj=125°C	5.0		mA
Instantaneous Forward Voltage Drop	VF	IF=5A	Tj=25°C		0.85	V
			Tj=125°C	0.64		V
		IF=15A	Tj=25°C		1.00	V
			Tj=125°C	0.70		V

Notes: Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%

■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

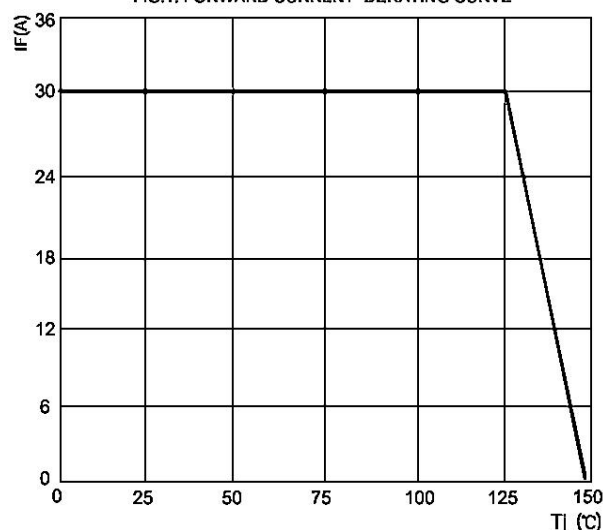


FIG.2: TYPICAL FORWARD CHARACTERISTICS

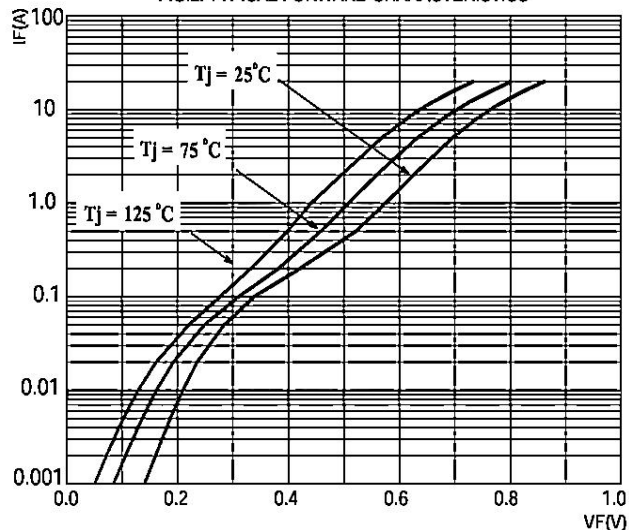


FIG.3: TOTAL CAPACITANCE DERATING CURVE

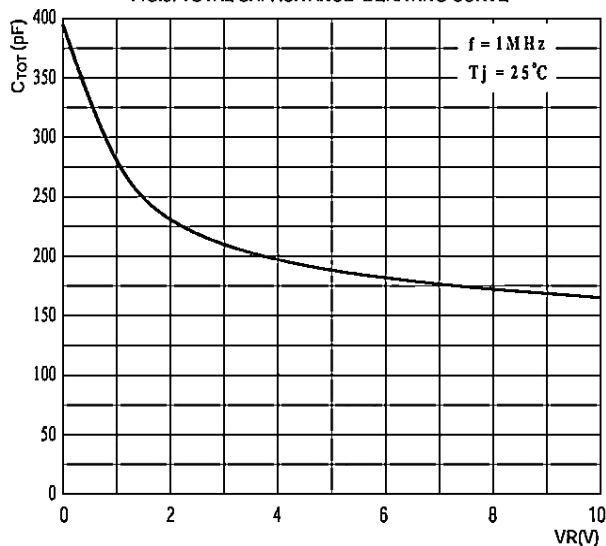
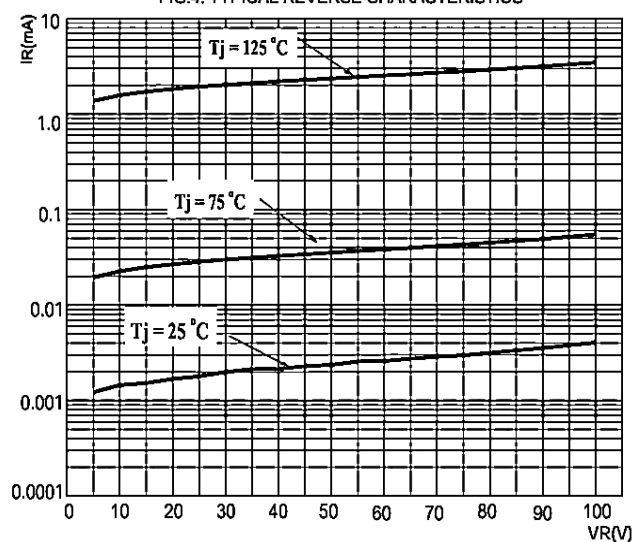
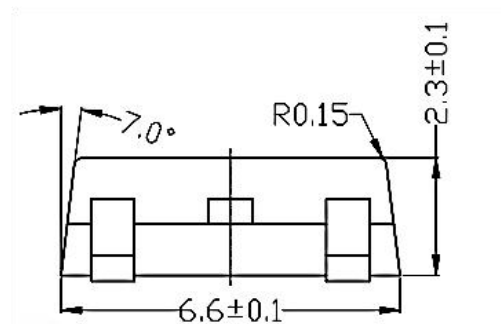
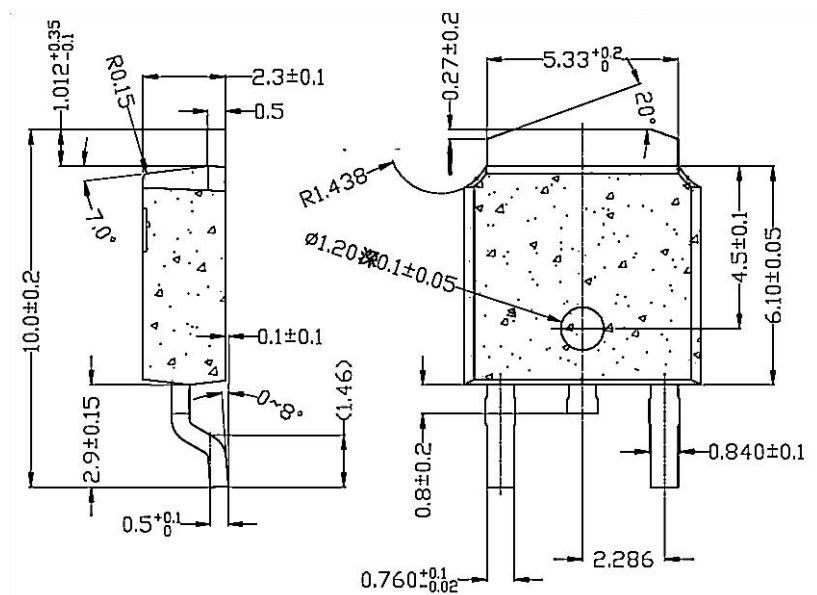


FIG.4: TYPICAL REVERSE CHARACTERISTICS



TO - 252 Package Outline Dimensions



TO - 252 Packing Information

Package version	Reel dimensions $\phi \times H$ (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions $L \times W \times H$ (mm)	Outer box (pcs)	Outer box dimensions $L \times W \times H$ (mm)
T0-252	$\phi 330 \times 20$	2500	2	360*340*50	25000	375*375*280