

MBR10100DS

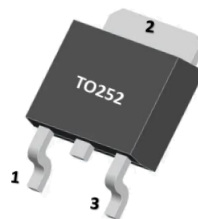
SWITCHING DIODES

DESCRIPTION

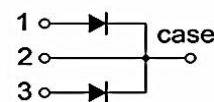
The MBR10100DS meet the ROHS and Green Product requirement with full function reliability approved.

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



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	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 from Junction to Ambient	TO-252 110	°C/W
RθJC	Thermal Resistance From Junction To Case	TO-252 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 _{BR}	I _R =0.1mA	100			V
Reverse current	I _R	V _R =100V		1	5	uA
Forward voltage	V _{F1}	I _F =3A T _j =25°C		0.70		V
	V _{F2}	I _F =5A T _j =25°C		0.77	0.82	V
	V _{F3}	I _F =10A T _j =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

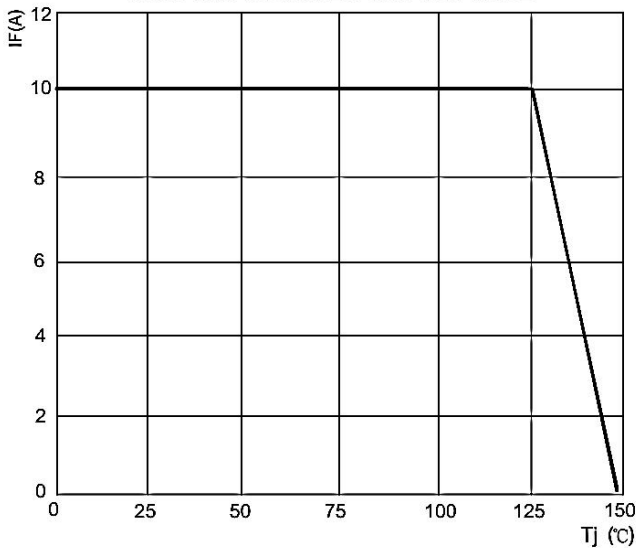


FIG.2: TYPICAL FORWARD CHARACTERISTICS

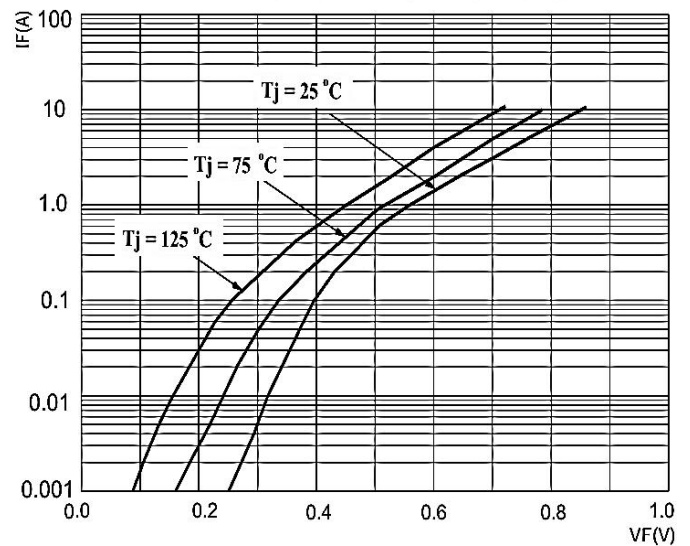


FIG.3: TOTAL CAPACITANCE DERATING CURVE

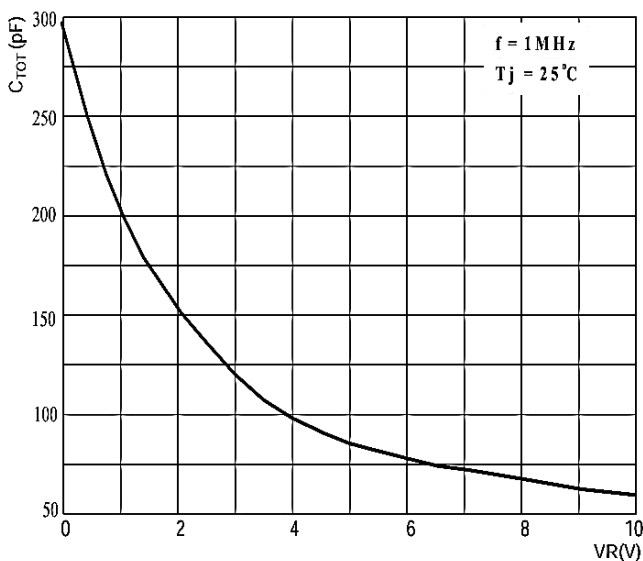
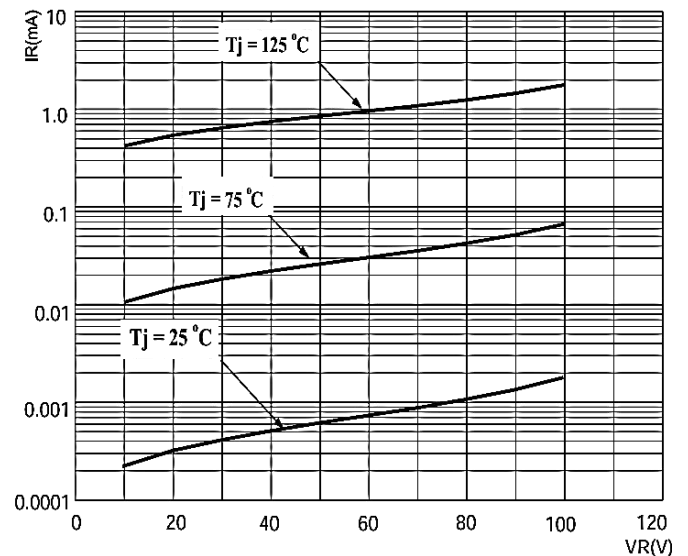


FIG.4: TYPICAL REVERSE CHARACTERISTICS



■ TO - 252 Package Outline Dimensions

