鼎德丰
DING DE FENG

MBR30100CS

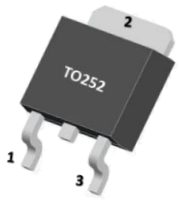
SCHOTTKY BARRIER RECTIFIER

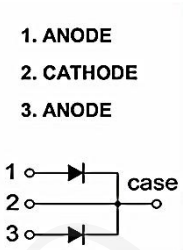
■ DESCRIPTION

The MBR30100CT 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





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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak repetitive reverse voltage	100	V
V_{RWM}	Working peak reverse voltage		V
V_R	DC blocking voltage		V
$V_{R(RMS)}$	RMS reverse voltage	70	V
I_O	Average forward rectified output current	30(15*2)	A
I_{FSM}	Non-Repetitive Peak Forward Surge Current 8.3ms Single	200*	A
T_j	Junction temperature	175	°C
T_{stg}	Storage temperature	-55~+150	°C
$R_{\theta JA}$	Thermal Resistance fromJunction to Ambient	62.5	°C/W
$R_{\theta JC}$	Thermal Resistance From Junction To Case	3	°C/W

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.

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■ 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
Instantaneous Reverse Current	I_R	V_R=100V	Tj=25℃		5.0	100	μA
			Tj1=25℃		5.0		mA
Instantaneous Forward Voltage Drop	V_{F1}	I_F=10A	Tj=25℃		0.772	0.82	V
			Tj1=25℃		0.64		V
		I_F=15A	Tj=25℃		0.833	0.85	V
			Tj1=25℃		0.70		V

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

■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

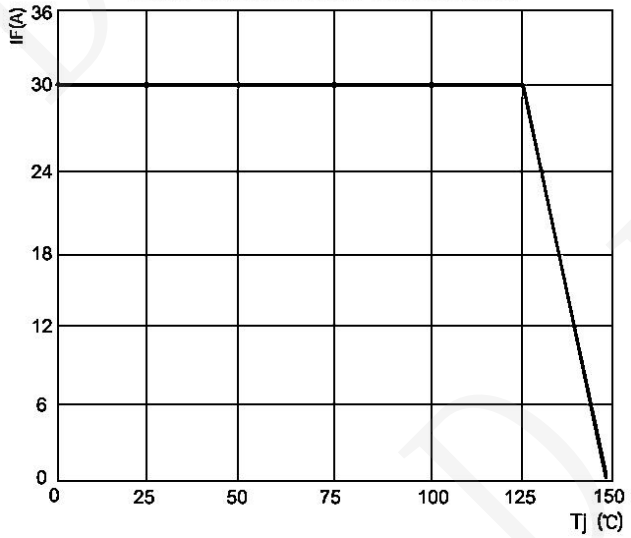


FIG.2: TYPICAL FORWARD CHARACTERISTICS

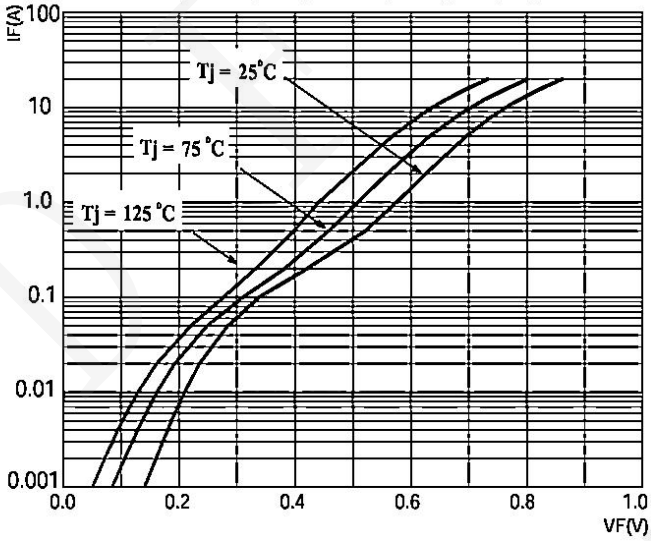


FIG.3: TOTAL CAPACITANCE DERATING CURVE

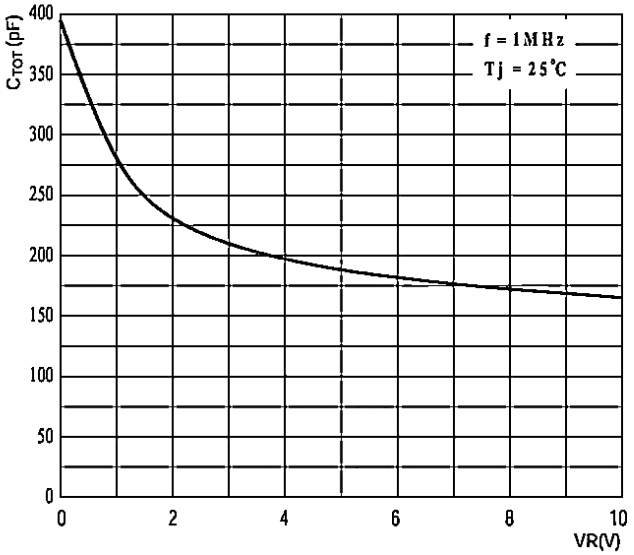
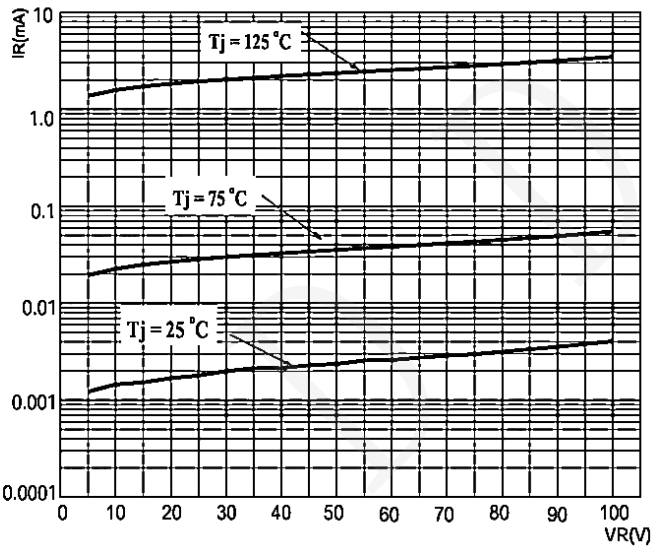


FIG.4: TYPICAL REVERSE CHARACTERISTICS



■ TO - 252 Package Outline Dimensions