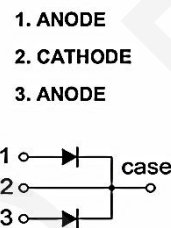
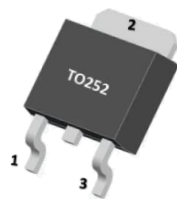


DESCRIPTION

The MBR2045CT 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
VRRM	Peak repetitive reverse voltage	45	V
VRWM	Working peak reverse voltage	45	V
VR	DC blocking voltage	45	V
VR(RMS)	RMS reverse voltage	31.5	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	150	°C
Tstg	Storage temperature	-55~+150	°C
RθJA	Thermal Resistance from Junction to Ambient	100	°C/W
RθJC	Thermal Resistance From Junction To Case	5	°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	45			V
Reverse current	I _R	V _R =45V	T _j =25°C		40	μA
			T _j =125°C		10	mA
Forward voltage	V _{F1}	I _F =5A	T _j =25°C	0.5	0.55	V
			T _j =125°C	0.44		V
	V _{F2}	I _F =10A	T _j =25°C	0.60	0.64	V
			T _j =125°C	0.56		V

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

TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

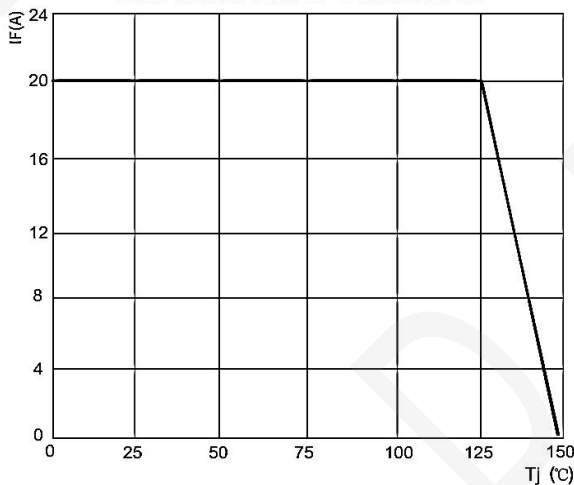


FIG.2: TYPICAL FORWARD CHARACTERISTICS

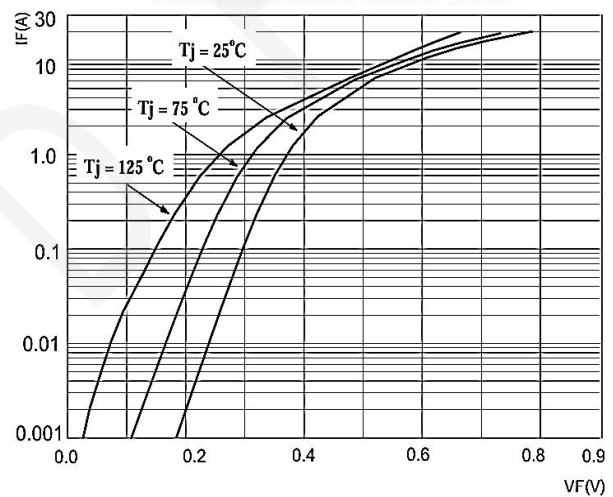


FIG.3: TOTAL CAPACITANCE DERATING CURVE

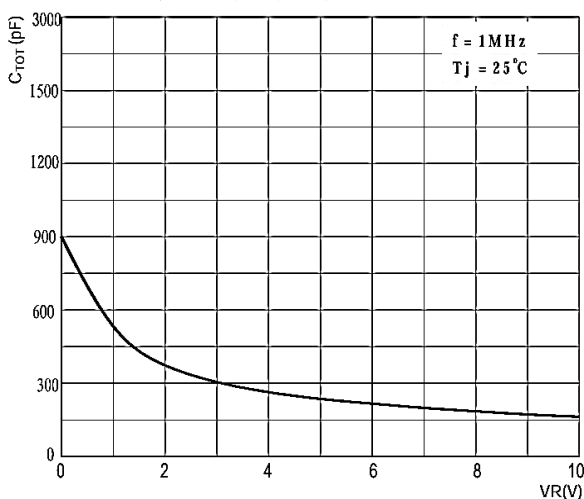


FIG.4: TYPICAL REVERSE CHARACTERISTICS

