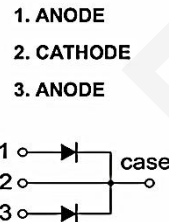
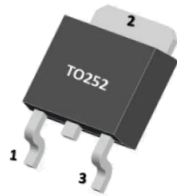


■ APPLICATIONS

The MBR3045CT 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	45	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	31.5	V
I_o	Average rectified output current	30(15*2)	A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)	200*2	A
$R_{\theta Jc}$	Thermal resistance from junction to case ,Tc=25°C	2.0	°C/W
$R_{\theta JA}$	Thermal resistance from junction to ambient	62.5	°C/W
T_j	Junction temperature	150	°C
T_{stg}	Storage temperature	-55~+150	°C

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.

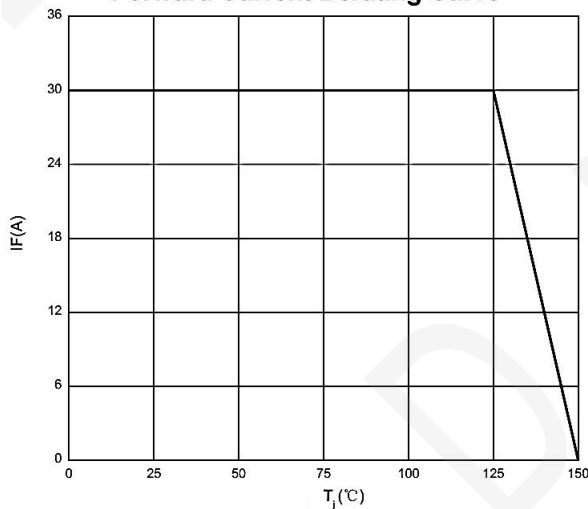
■ ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R = \text{mA}$	45			V
Reverse current	I_R	$V_R = 45\text{V}$	$T_J = 25^\circ\text{C}$	40	150	μA
			$T_J = 125^\circ\text{C}$	23		mA
Forward voltage	V_F	$I_F = 10\text{A}$	$T_J = 25^\circ\text{C}$	0.556	0.58	V
			$T_J = 125^\circ\text{C}$	0.37		V
		$I_F = 15\text{A}$	$T_J = 25^\circ\text{C}$	0.48	0.55	V
			$T_J = 125^\circ\text{C}$	0.44		V

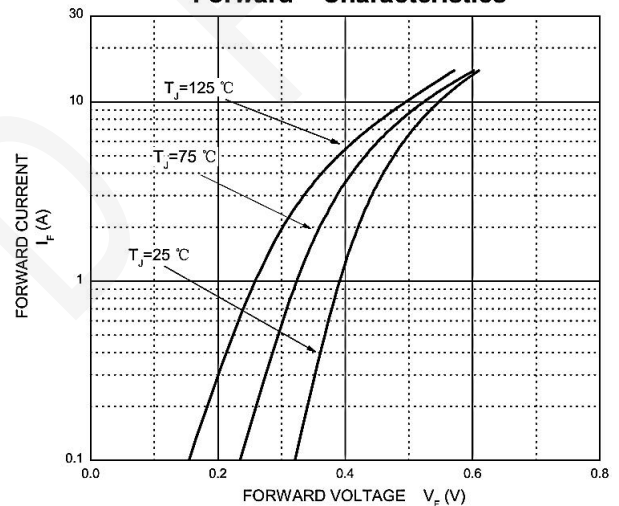
Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2.0\%$.

■ TYPICAL CHARACTERISTICS

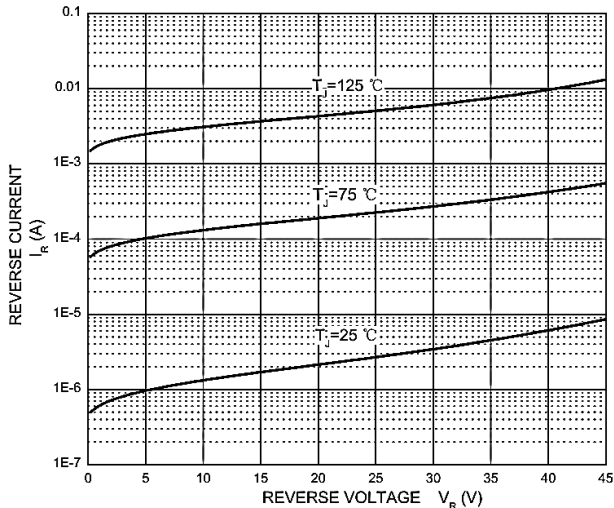
Forward Current Derating Curve



Forward Characteristics



Reverse Characteristics



Capacitance Characteristics Per Diode

