

# TMBR30100CT

## Dual Common-Cathode Ultra Low VF Schottky Rectifier

### Features

- Guard ring for overvoltage protection
- Lower power losses, high efficiency
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High frequency operation
- Solder Dip 260 °C, 40 s
- RoHS compliant package

### Applications

For use in high frequency rectifier of switching mode power supplies, freewheeling diodes, dc-to-dc converters or polarity protection application.

### Mechanical Data

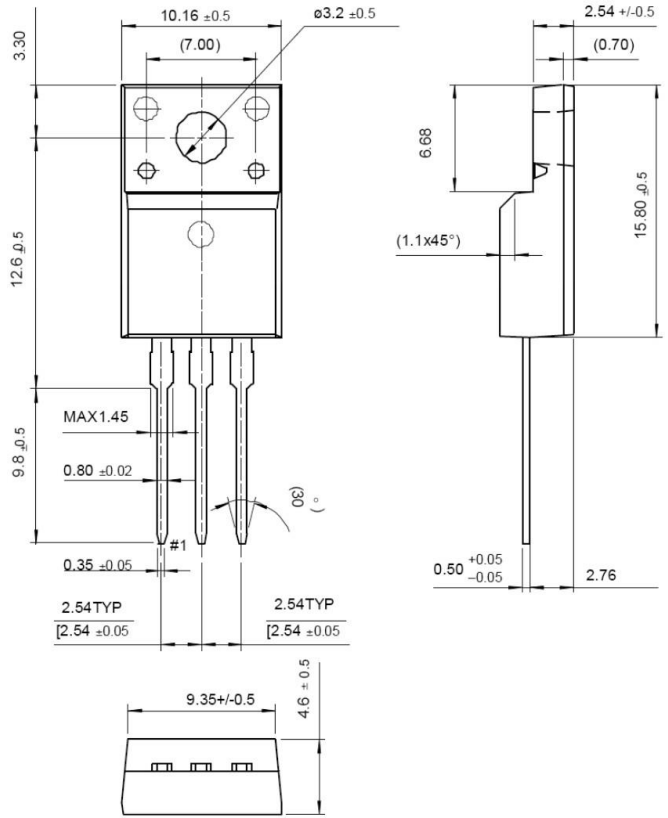
- Case: TO-220AB
- Molding compound meets UL 94 V-0 flammability
- Terminals: Matte tin plated leads
- Polarity: As marked
- Weight: 2.24 grams
- Mounting Torque: 10 in-lbs maximum

### Packing & Order Information

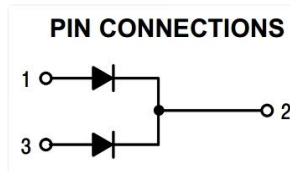
50/Tube ; 1,000/Box



**RoHS  
COMPLIANT**



### Graphic symbol



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### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	TMBR30100CT	Unit
Maximum repetitive peak reverse voltage	VRRM	100	V
Working peak reverse voltage	VRWM	100	V
Maximum DC blocking voltage	VDC	100	V
Maximum average forward rectified current Total device	IF(AV)	30	A
Average Rectified Forward Current	Io(AV)	15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	200	A
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +175	°C

#### Electrical characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=15A, Tj=25°C at IF=15A, Tj=125°C	VF	0.70 0.64	0.76 0.68	V
Maximum reverse current per leg Tj=25°C	IR	200		u'A
at working peak reverse voltage Tj=125°C		30		m'A

#### Notes:

- (1) Pulse test: 300 µs pulse width, 1 % duty cycle
- (2) Pulse test: Pulse width ≤ 40 ms

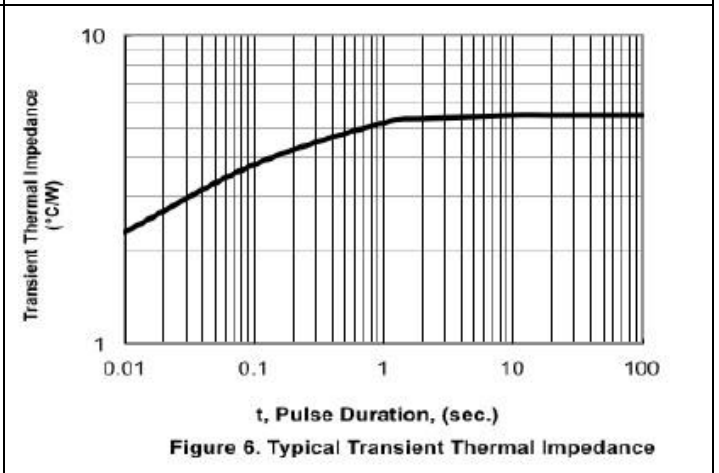
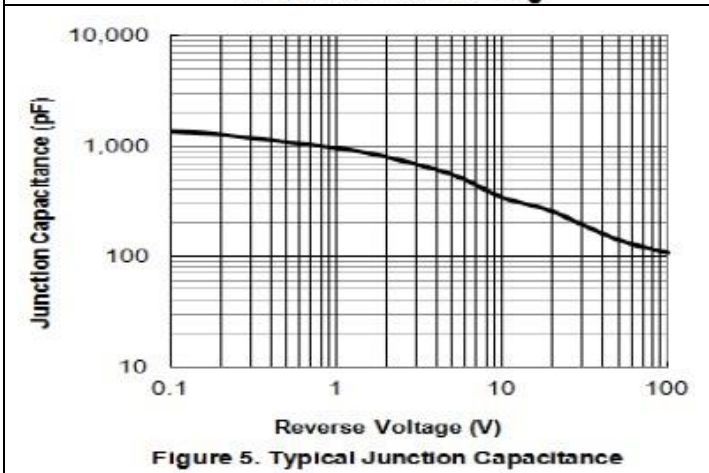
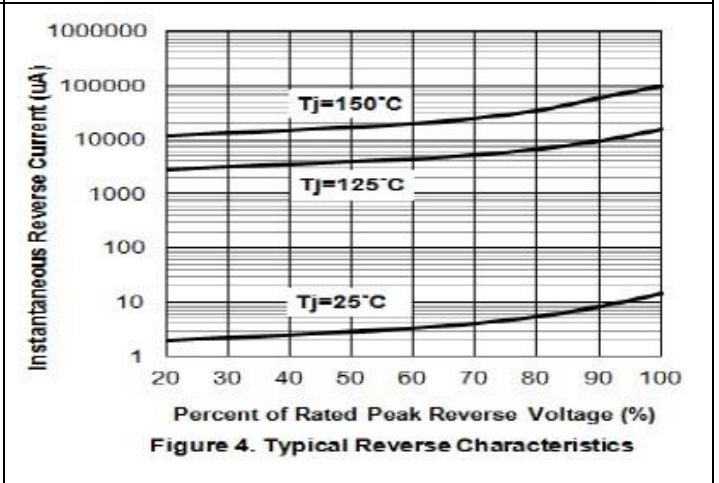
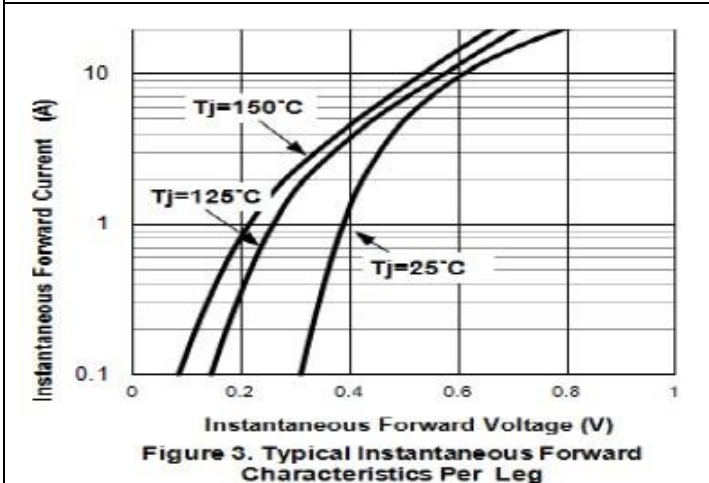
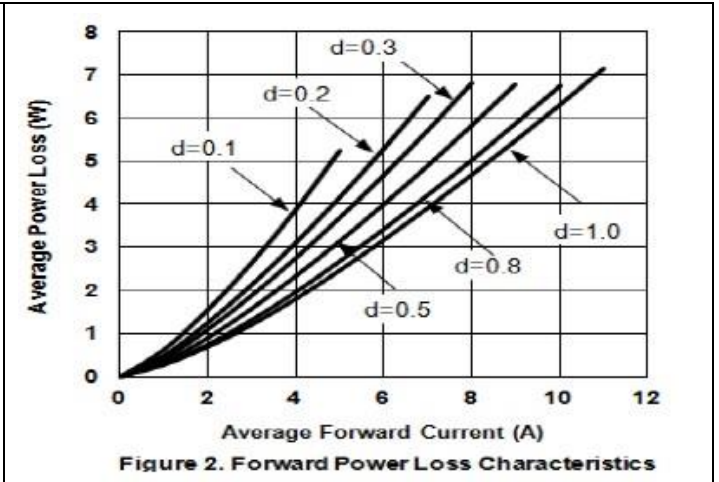
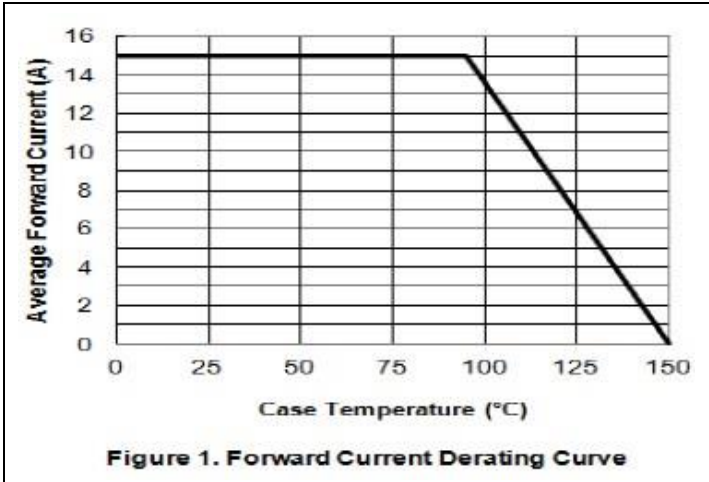
#### Thermal characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Typical thermal resistance	Rthjc	4	°C/W
	RθJA	60	

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■ TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified



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