

TMBR2080CT

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

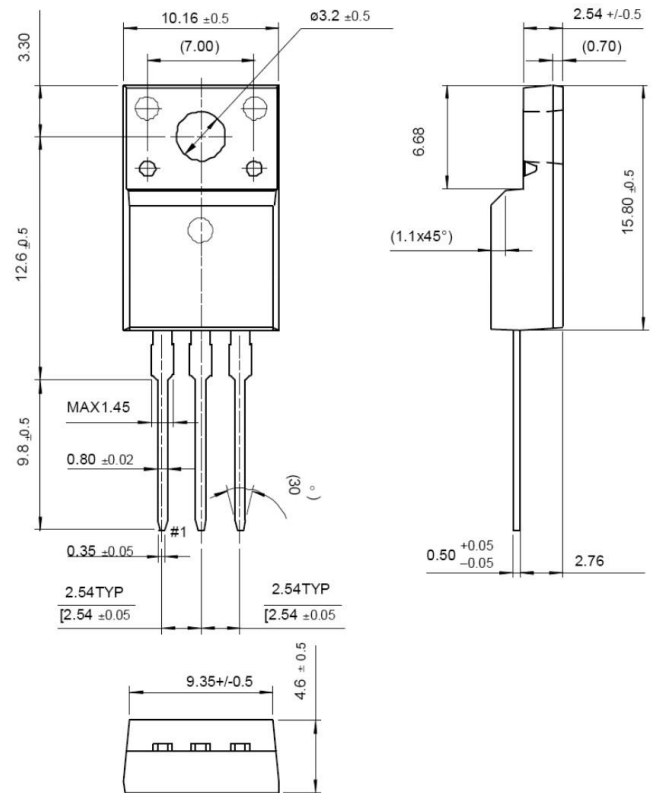
For use in high frequency rectifier of switching mode power supplies, free wheeling diodes, dc-to-dc converters or polarity protection application.

Mechanical Data

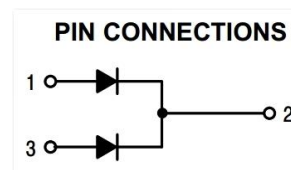
- Case: TO-220AB
- Molding compound meets UL 94 V-0 flammability
- RoHS compliant, and commercial grade
- Terminals: Matte tin plated leads, solderable per meets JESD 201
- Polarity: As marked
- Weight: 2.35grams
- Mounting Torque: 10 in-lbs maximum

Packing & Order Information

50/Tube ; 1,000/Box



Graphic symbol



RoHS
COMPLIANT

TMBR2080CT

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	TMBR2080CT	Unit
Maximum repetitive peak reverse voltage	VRRM	80	V
Working peak reverse voltage	VRWM	80	V
Maximum DC blocking voltage	VDC	80	V
Maximum average forward rectified current	IF(AV)	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	120	A
Average Rectified Forward Current	Io(AV)	20	A
Operating junction temperature range	TJ	-55 to +175	°C
Storage temperature range	TSTG	-55 to +175	°C

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

Parameter	Symbol	Value		Unit
		Typical	Max	
Maximum instantaneous forward voltage per leg at IF=10A, Tj=25°C	VF	0.61	0.65	V
forward voltage per leg at IF=10A, Tj=125°C		0.58	0.62	
Maximum reverse current per leg at working peak reverse voltage	IR	200		u'A
Tj=25°C		1		m'A
Tj=125°C				

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	TMBR2080CT		°C/W
	Rthja	60	
	RθJA	4	

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

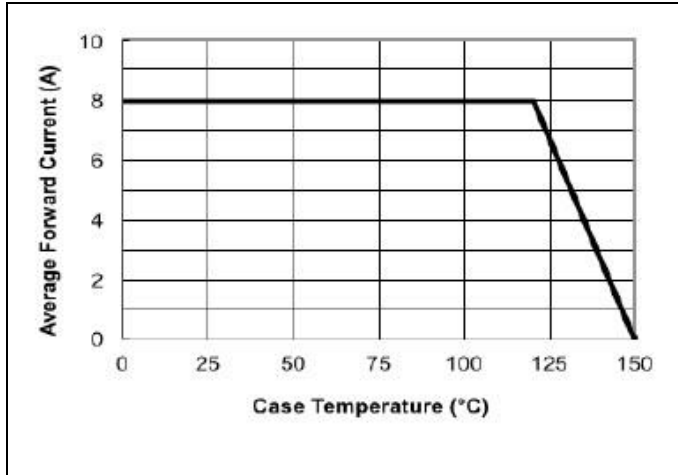


FIG.1- FORWARD CURRENT DERATING CURVE

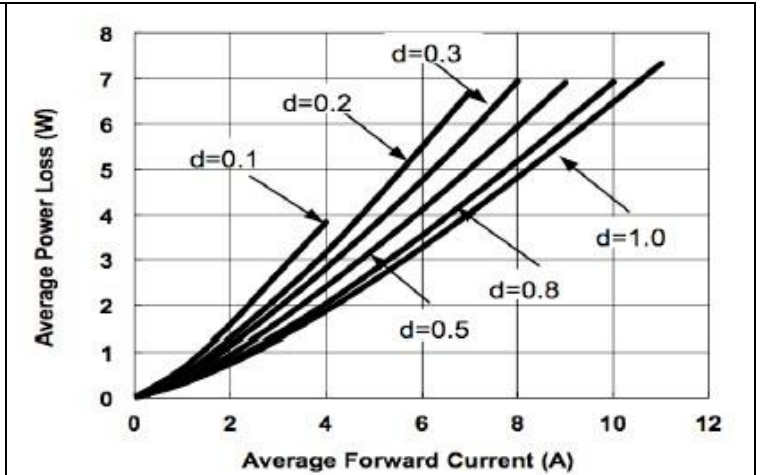


FIG.2- FORWARD POWER LOSS CHARACTERISTICS

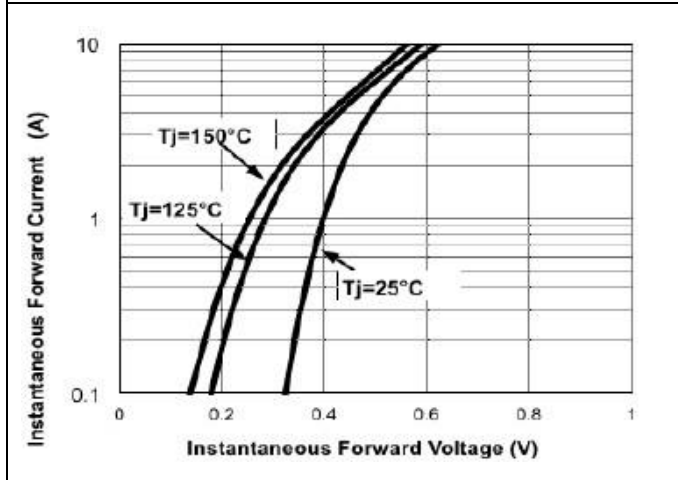


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

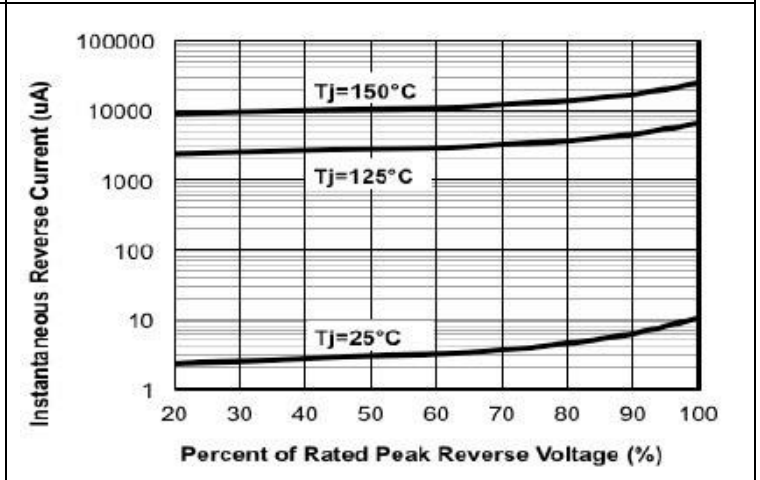


FIG.4-TYPICAL REVERSE CHARACTERISTICS

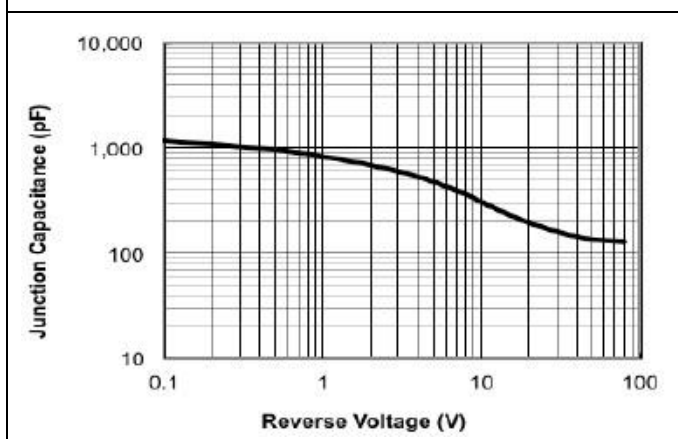


FIG.5- TYPICAL JUNCTION CAPACITANCE

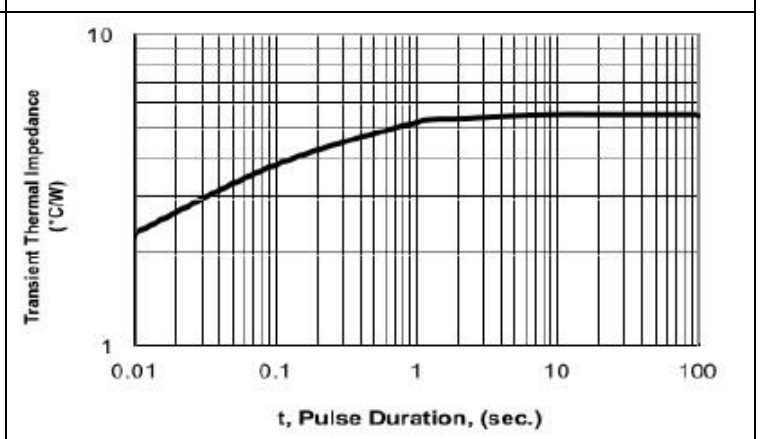


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

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