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, freewheeling diodes, dc-to-dc converters or polarity protection application.

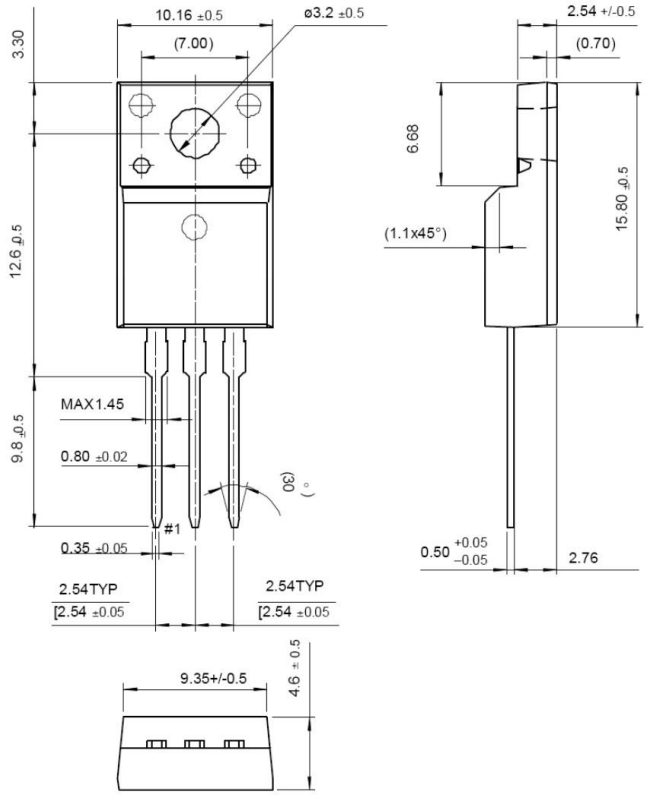
Mechanical Data

- Case: ITO-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

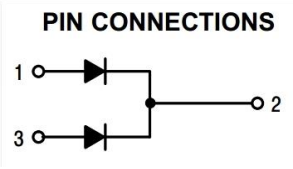
Packing & Order Information

50/Tube ; 1,000/Box

RoHS
COMPLIANT



Graphic symbol



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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	
Maximun instantaneous at IF=10A, Tj=25°C forward voltage per leg at IF=10A, Tj=125°C		VF	0.61 0.58	0.65 0.62	V
Maximum reverse current per leg	Tj=25°C	IR	200		u'A
at working peak reverse voltage	Tj=125°C		1		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		Value	Unit
Typical thermal resistance	Symbol	TMBR2080CT	°C/W
	Rthja	60	
	RθJA	4	

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■TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

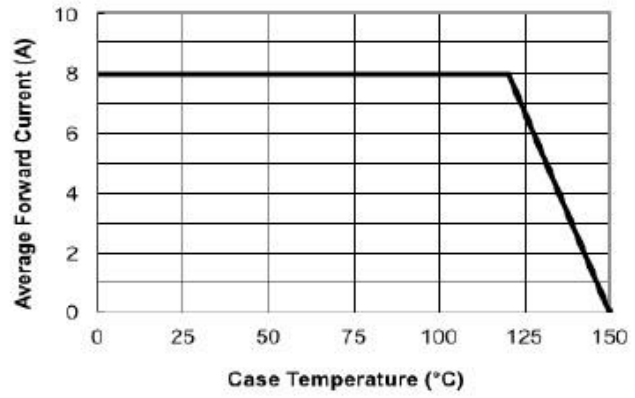

FIG.1- FORWARD CURRENT DERATING CURVE

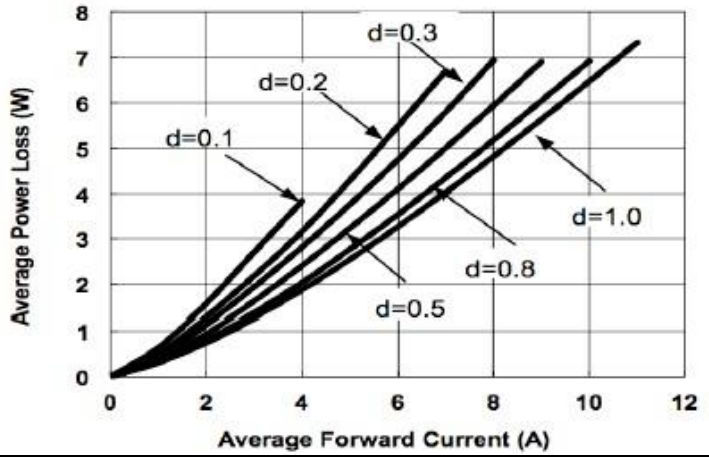

FIG.2- FORWARD POWER LOSS CHARACTERISTICS

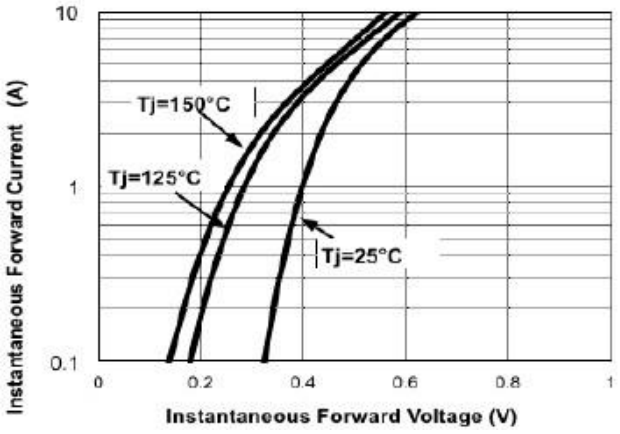

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

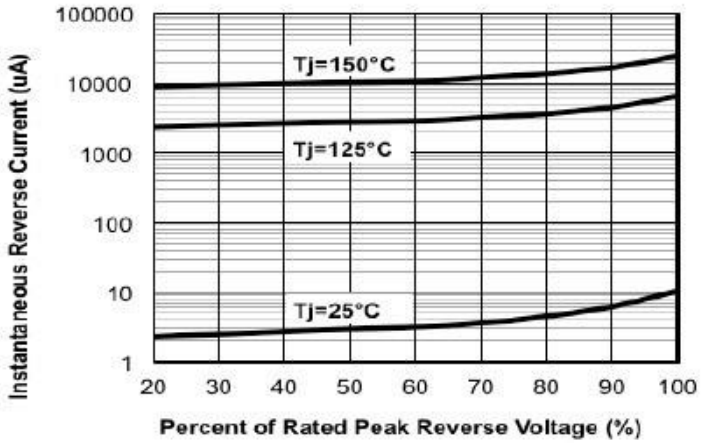

FIG.4-TYPICAL REVERSE CHARACTERISTICS

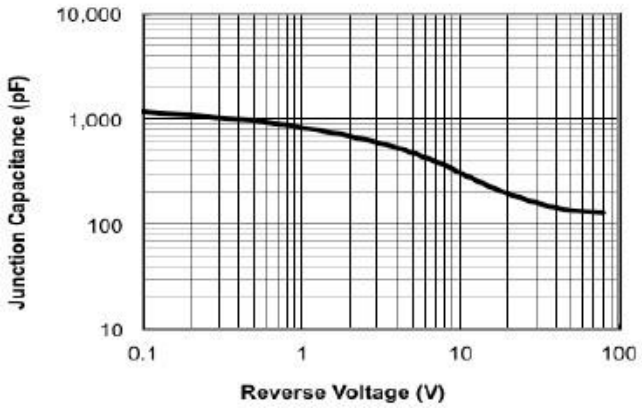

FIG.5- TYPICAL JUNCTION CAPACITANCE

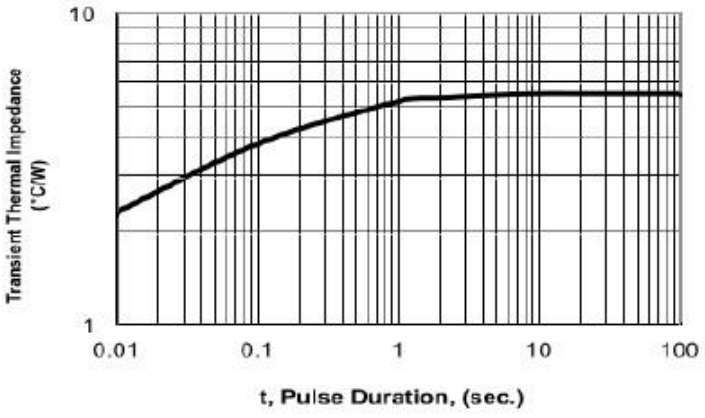

FIG.6- TYPICAL TARNSIENT THERMAL IMPEDANCE

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