Schottky Barrier Rectifier

TMBRX350 - TMBRX360

Features

- Metal silicon junction, majority carrier conduction
- High forward surge current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C @ 10s
- Robust guarding for over voltage protection
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF

Mechanical Data

- Case: SOD-123FL molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads; solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	TMBRX350	TMBRX360	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	50	60	V
RMS Reverse Voltage	V_{RMS}	35	42	V
DC Blocking Voltage	V_{DC}	50	60	V
Average Forward Output Current	I_{F_AV}	3.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	80		A

Thermal Characteristics

Parameter	Symbol	TMBRX350	TMBRX360	Unit
Typical Thermal Resistance *1	$R_{\Theta JA}$	85		°C/W
	$R_{\Theta JC}$	23		
	$R_{\Theta JL}$	15		
Operating Junction Temperature Range	T_J	-55 ~ +150		°C
Storage Temperature Range	T_{STG}	-55 ~ +150		°C

Note *1: Device mounted on p.c.b. with 10 mm x 20 mm x 0.1 mm copper pad area

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Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Conditions		Typ.	Max.	Unit
Instantaneous Forward Voltage*1	V_F	I_F = 3.0A	@ T_A = 25°C	-	0.65	V
Reverse Current*2	I_R	Rated V_R	@ T_J = 25°C	-	100	μA
			@ T_J = 100°C	-	10	mA

Note*1: Pulse test: 300us pulse width, 1 % duty cycle
Note*2: Pulse test: Pulse width 40ms

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Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

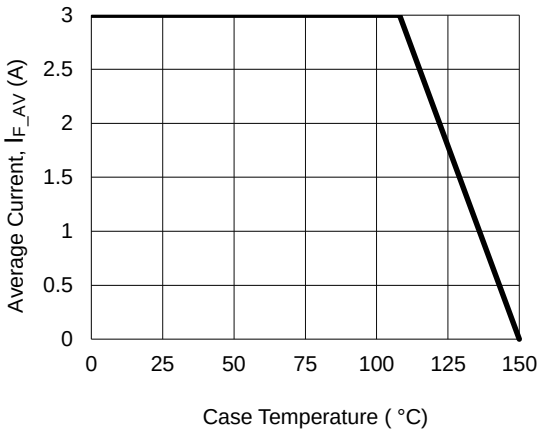


Fig.2 Surge Current Derating Curve

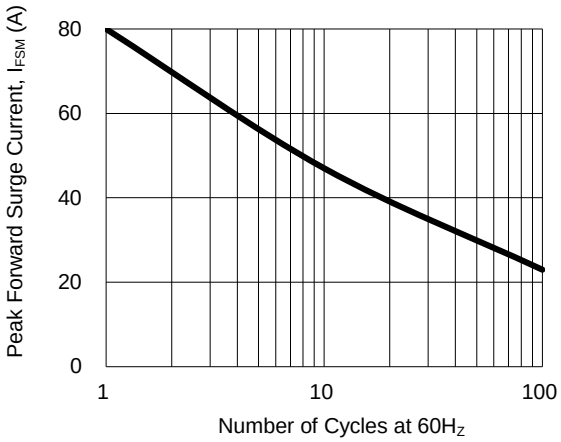


Fig.3 Typical Forward Voltage Characteristics

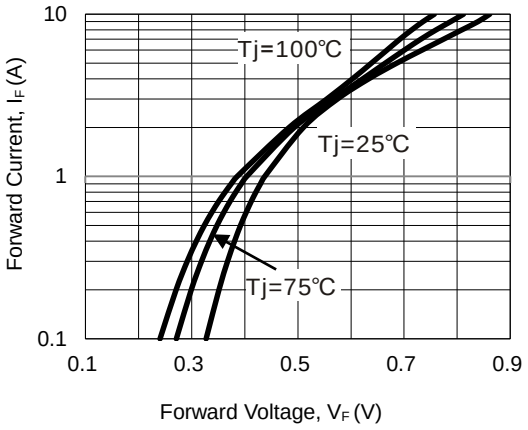
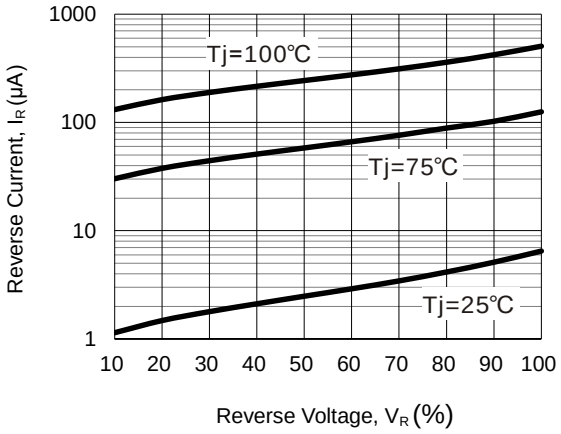


Fig.4 Typical Reverse Characteristics



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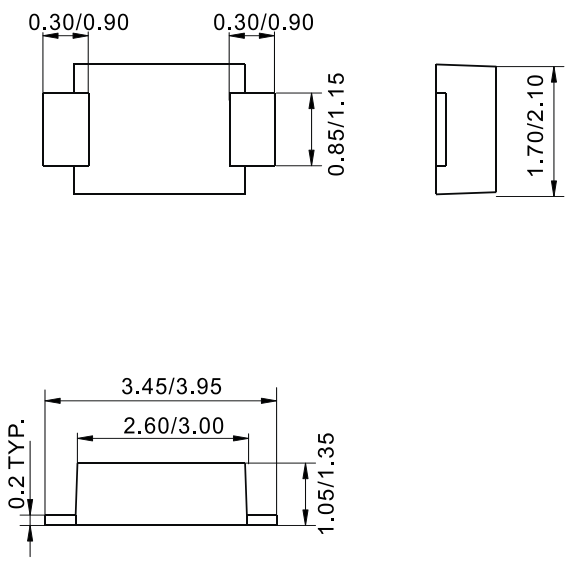
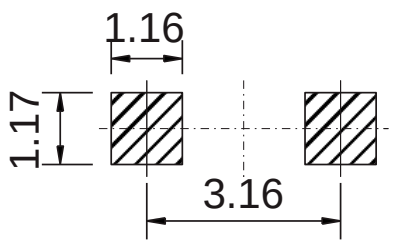
Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TMBRX350	35	SOD-123FL	10000 / Tape & Reel
TMBRX360	36	SOD-123FL	10000 / Tape & Reel