



EBRP10M300T



Excellent Schottky Barrier Rectifiers



TO-277

Features

- High current capability
- High surge current capability
- Low reverse current

Primary Characteristics

I_F	10	A
V_{RRM}	300	V
I_{FSM}	120	A
V_F	0.98	V
T_J max	150	°C

Mechanical Data

- Case : TO-277
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity : Cathode Band

Ordering Information

Part No.	Remark	Package	Packing
EBRP10M300T	General	TO-277	5000 / Tape & Reel
EBRP10M300T-H	Halogen Free		
EBRP10M300T-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	EBRP10M300T	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC blocking voltage	V_{DC}	300	V
Maximum average forward rectified current	I_F	10	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Maximum Instantaneous Forward Voltage $I_F=3A @ 25^\circ C$ $I_F=10A @ 25^\circ C$	V_F	0.77 Typ. 0.98 Max.	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C	I_R	0.2 5	mA
Typical Junction Capacitance (NOTE1)	C_j	90	pF
Typical Thermal Resistance	$R_{\theta JC}$	20	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Marking Code		P10M300T · 10M300T	

NOTES :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

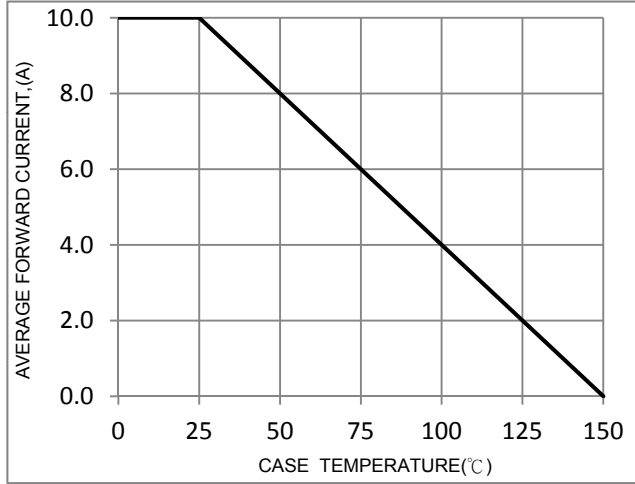


FIG. 2-Typical Forward Characteristics

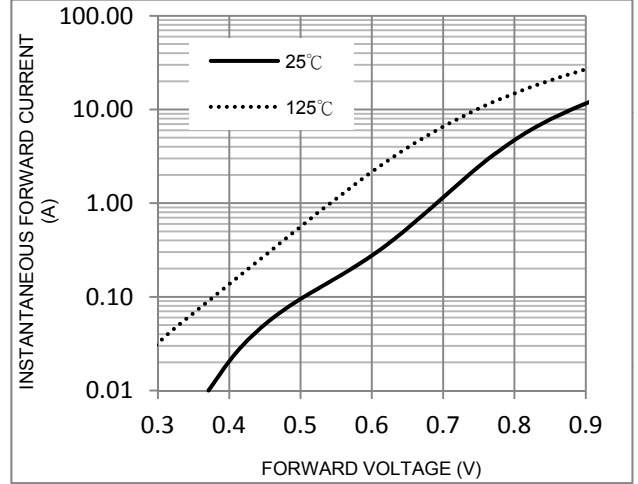


FIG. 3-Maximum Non-Repetitive Forward Surge Current

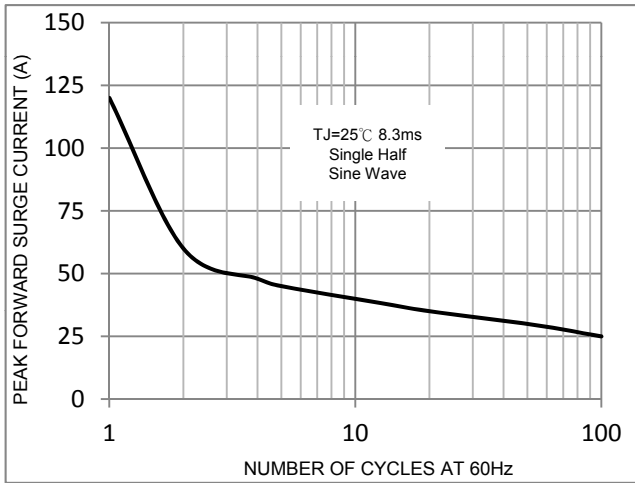


FIG. 4-Typical Reverse Characteristics

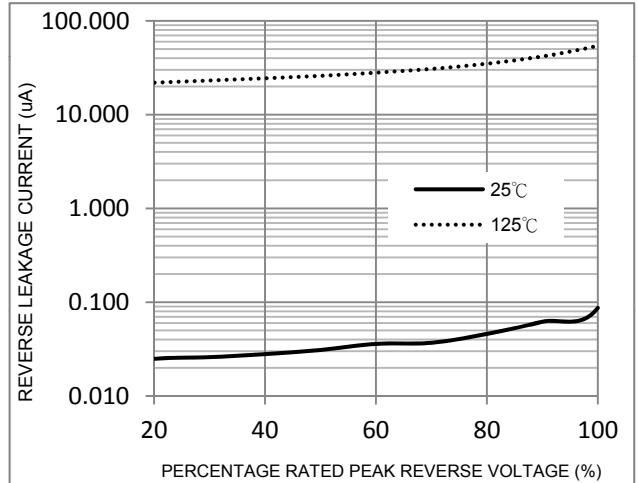
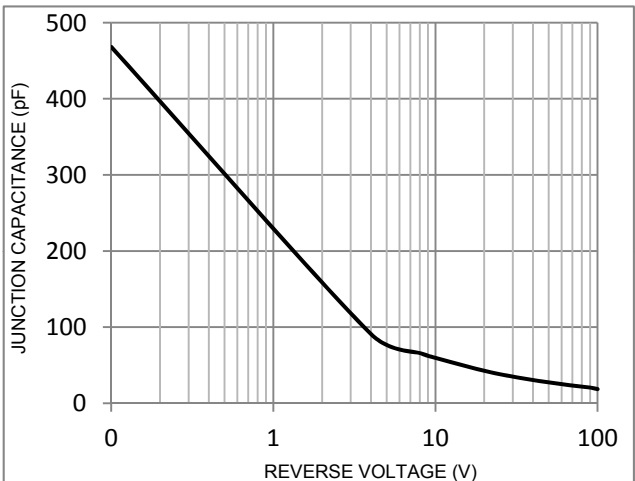
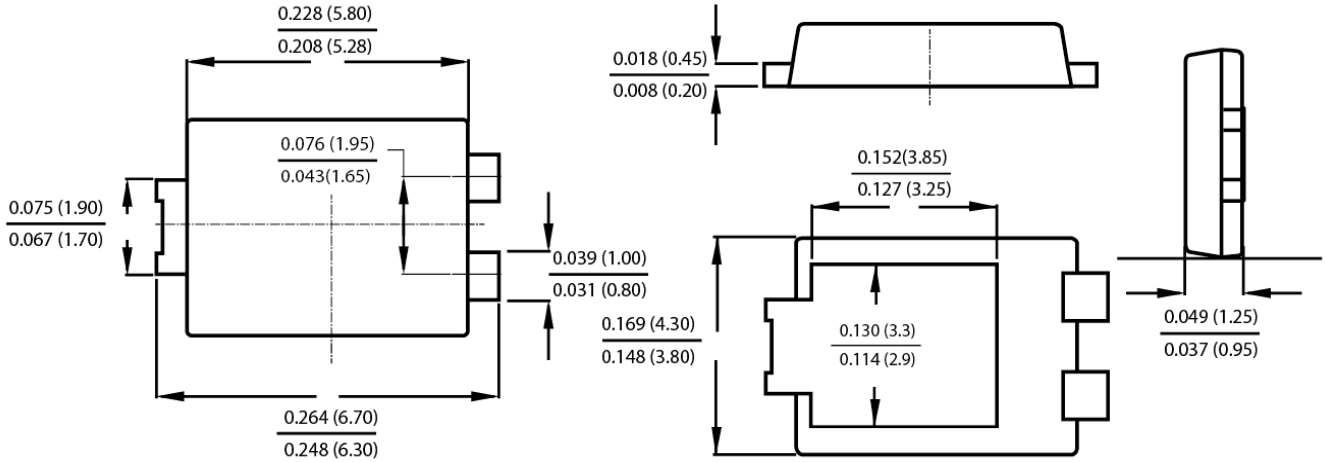


FIG. 5-Typical Junction Capacitance





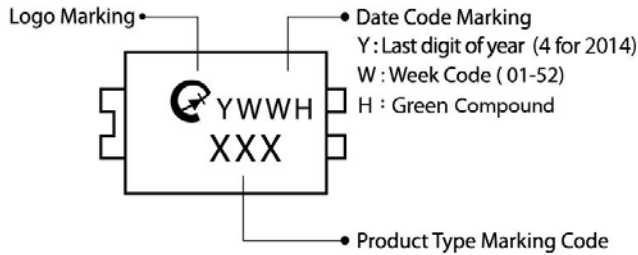
Package Outline Dimensions



TO-277

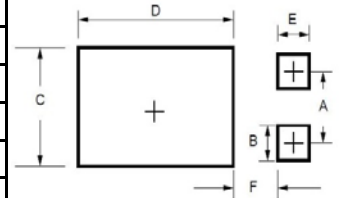
Dimensions in inches and (millimeters)

Marking Information



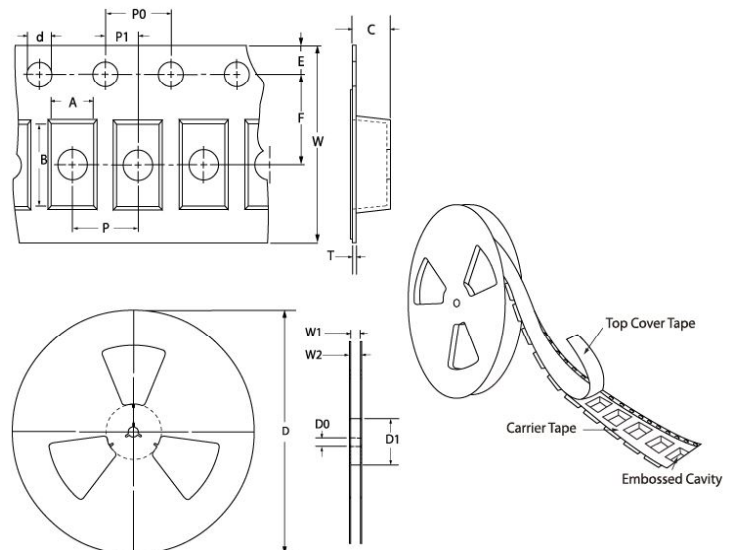
Suggested Pad Layout

Dimension	Outline	TO-277 (mm)
A		1.94
B		1.10
C		3.35
D		4.90
E		1.00
F		1.40



Tape & Reel Specification

ITEM	SYMBOL	TO-277 (mm)
Carrier width	A	4.38 (max)
Carrier length	B	6.9 (max)
Carrier depth	C	1.4±0.1
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	330±2.0
Feed hole diameter	D0	13.0+0.5/-0.2
Reel inner diameter	D1	50 (min)
Sprocket hole position	E	1.75±0.1
Punch hole position	F	5.5±0.05
Sprocket hole pitch	P	8.0±0.1
Sprocket hole pitch	P0	4.0±0.1
Embossment center	P1	2.0±0.1
Overall tape thickness	T	0.6 (max)
Tape width	W	12.0±0.15
Reel width	W2	20 (max)
Reel width	W1	16 (max)





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