



# P10E300CT



## Excellent Schottky Barrier Rectifiers



**TO-220AB**

Primary Characteristics		
$I_F$	10	A
$V_{RRM}$	300	V
$I_{FSM}$	120	A
$V_F$	0.86	V
$T_J$ max	150	°C

Features
<ul style="list-style-type: none"> <li>• Low Forward Voltage Drop</li> <li>• Excellent High Temperature Stability</li> <li>• Excellent Barrier Rectifier Technology</li> <li>• Soft, Fast Switching Capability</li> </ul>

Mechanical Data
<ul style="list-style-type: none"> <li>• Case: TO-220AB</li> <li>• Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0</li> <li>• Terminals: Matte Tin Finish annealed over Copper leadframe.Solderable per MIL-STD-202, Method 208</li> <li>• Weight: 2.015 grams (approximate)</li> </ul>

Ordering Information			
Part No.	Remark	Package	Packing
P10E300CT	General	TO-220AB	50 & 2000 / Tube & Box
P10E300CT-H	Halogen Free		

Maximum Ratings (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	P10E300CT	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 (Total) (Per Leg)	$I_F$	10 5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	120	A
Maximum Instantaneous Forward Voltage IF=3A @ 25°C IF=5A @ 25°C IF=10A @ 25°C	$V_F$	0.77 Typ. 0.86 Max. 0.98 Typ.	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	$R_{\theta JC}$	3	°C/W
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +175	°C
Marking Code		P10E300CT、10E300CT	

**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

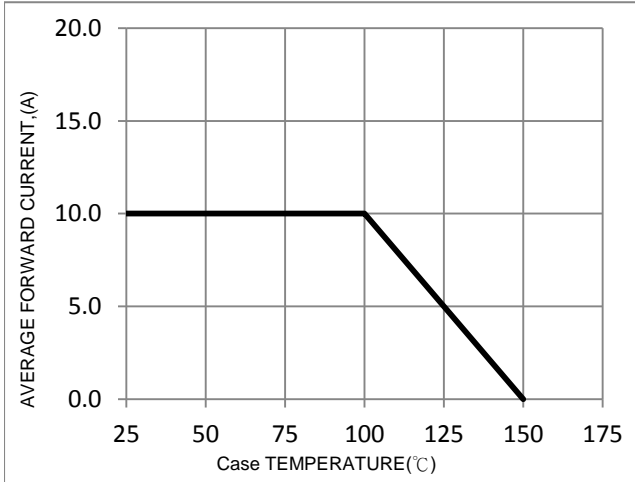


FIG. 2-Typical Forward Characteristics

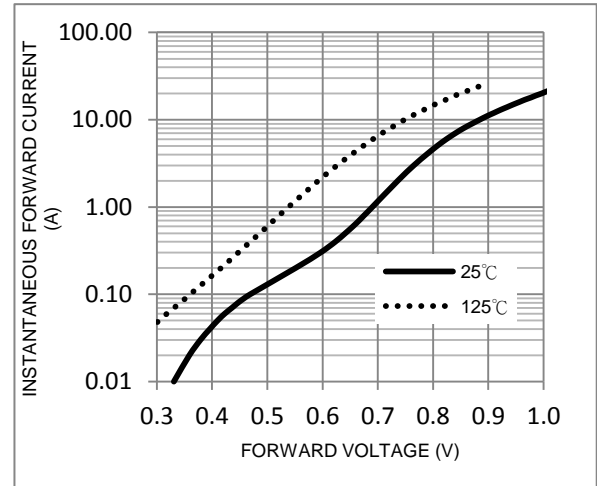


FIG. 3-Maximum Non-Repetitive Forward Surge Current

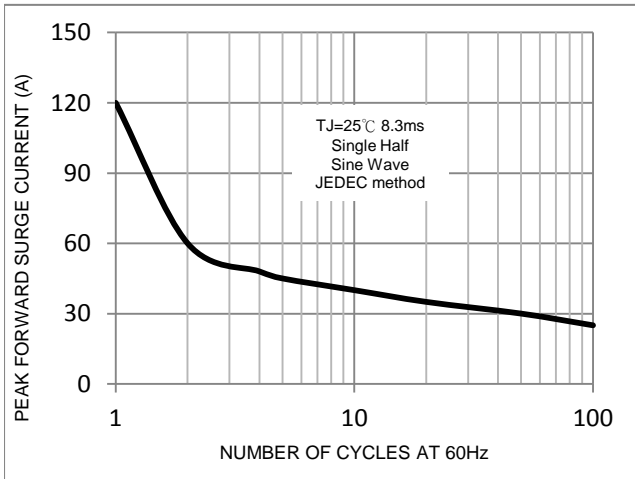


FIG. 4-Typical Reverse Characteristics

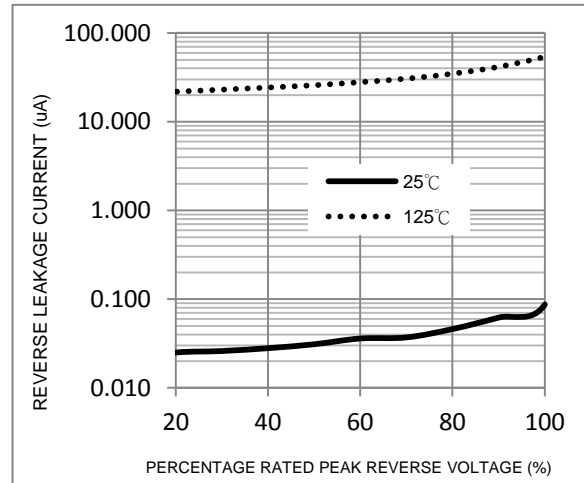
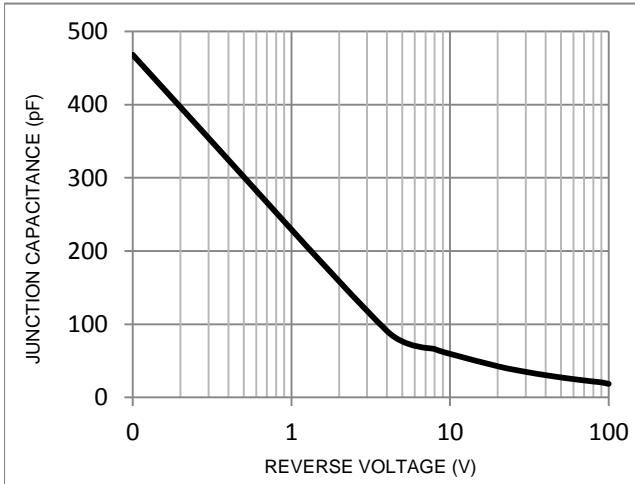
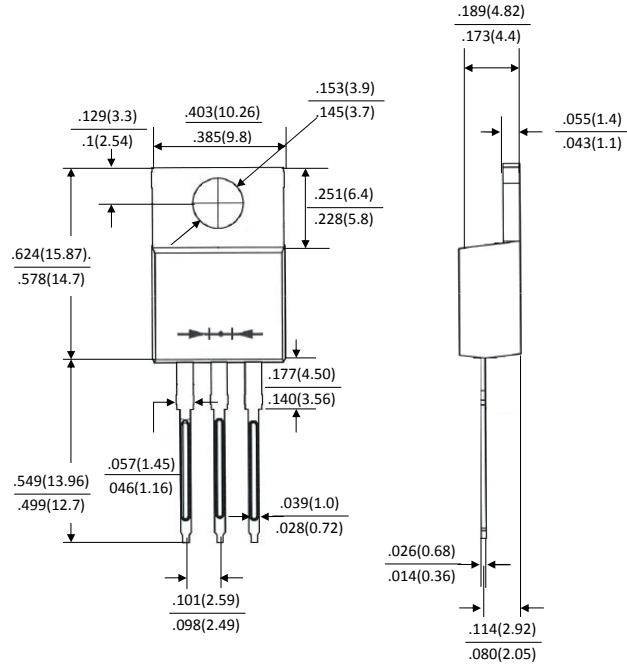


FIG. 5-Typical Junction Capacitance



### Package Outline Dimensions



### TO-220AB

Dimensions in inches and (millimeters)

### Marking Information

