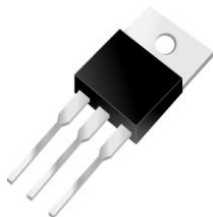




P40E45CT



Excellent Schottky Barrier Rectifiers



TO-220AB

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

Ordering Information		
Part No.	Package	Packing
P40E45CT	TO-220AB	50 & 2000 / Tube & Box

Device P/N	
Part Number	Remark
P40E45CT	General
P40E45CT-H	Halogen Free

Primary Characteristics		
I_F	40	A
V_{RRM}	45	V
I_{FSM}	300	A
V_F	0.48	V
$T_J \text{ max}$	150	°C

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

Maximum Ratings (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	P40E45CT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	31.5	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum average forward rectified current (Total) (Per Leg)	I_F	40 20	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300	A
Maximum Instantaneous Forward Voltage IF=5A @ 25°C	V_F	0.33 Typ.	V
Maximum Instantaneous Forward Voltage IF=20A @ 25°C		0.45 Typ. 0.48Max.	
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C	I_R	0.5 50	mA
Typical Junction Capacitance(NOTE1)	C_j	1210	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		P40E45CT - 40E45CT	

NOTES:

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



Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

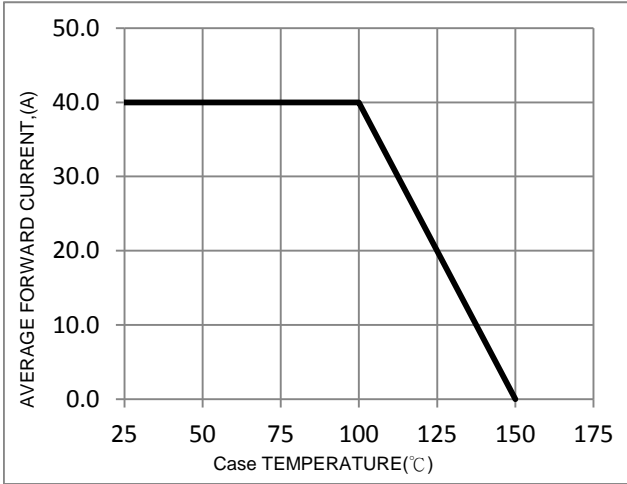


FIG. 2-Typical Forward Characteristics

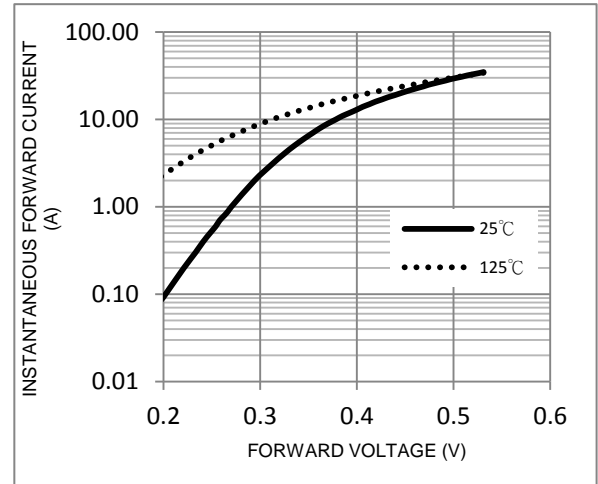


FIG. 3-Maximum Non-Repetitive Forward Surge Current

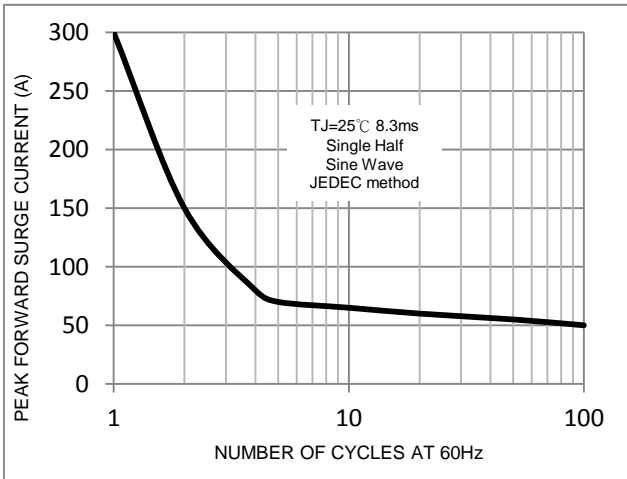


FIG. 4-Typical Reverse Characteristics

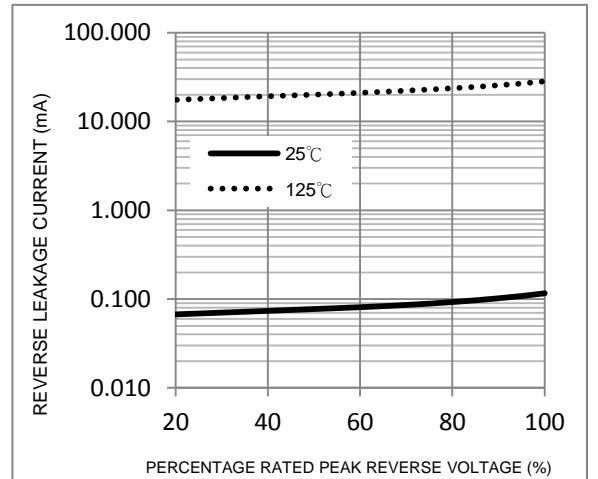
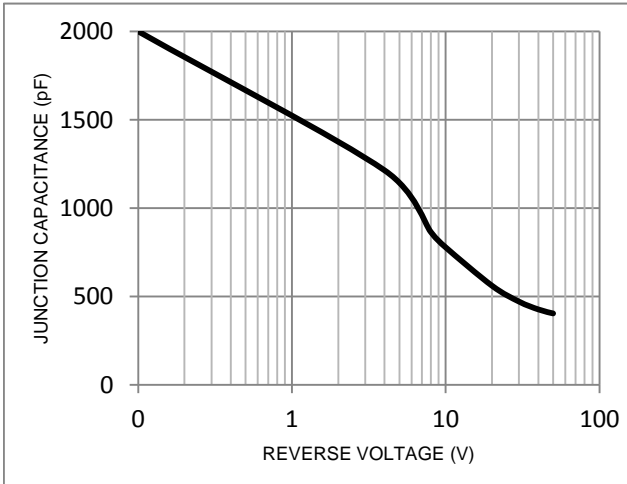
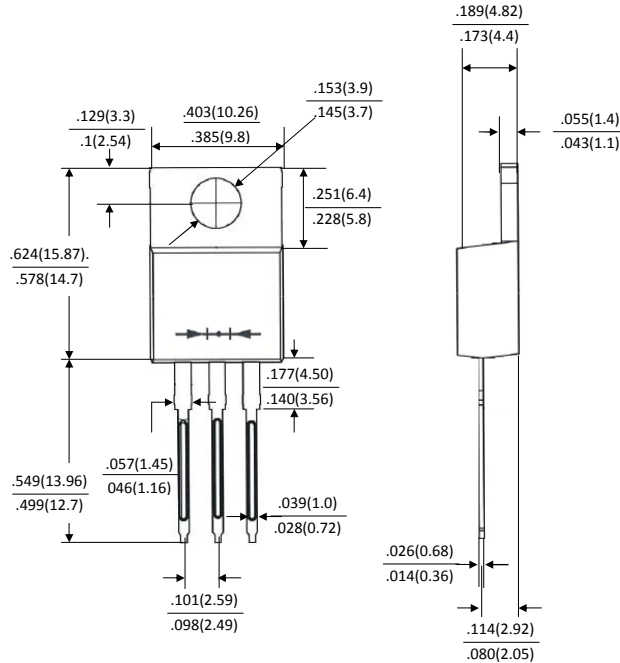


FIG. 5-Typical Junction Capacitance



Package Outline Dimensions



TO-220AB

Dimensions in inches and (millimeters)

Marking Information

