



# EBRT3E45S



## Excellent Schottky Barrier Rectifiers



DO-41

Primary Characteristics		
$I_F$	3	A
$V_{RRM}$	45	V
$I_{FSM}$	30	A
$V_F$	0.43	V
$T_J \text{ max}$	150	°C

Features
<ul style="list-style-type: none"> <li>• Guardring for overvoltage protection</li> <li>• Very small conduction losses</li> <li>• Low forward voltage drop</li> <li>• Component in accordance to RoHS 2002/95/EC</li> </ul>

Mechanical Data
• Cases: DO-41
• 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
• Weight: 0.318 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
EBRT3E45S	General	DO-41	5000 / Ammo Box
EBRT3E45S-H	Halogen Free		

Maximum Ratings (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	EBRT3E45S	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	$I_F$	3	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30	A
Maximum Instantaneous Forward Voltage IF=3A @ 25°C IF=3A @ 100°C	$V_F$	0.43 0.40	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	0.5 20	mA
Typical Junction Capacitance(NOTE1)	$C_j$	365	pF
Typical Thermal Resistance	$R_{\theta JC}$	30	°C/W
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C
Marking Code		T3E45S、3E45S	

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

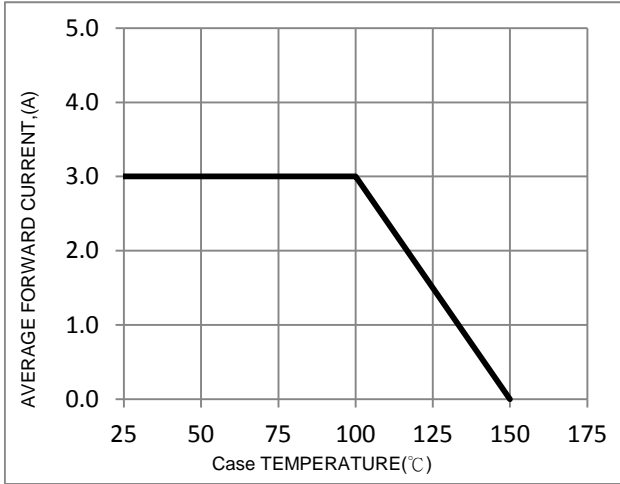


FIG. 2-Typical Forward Characteristics

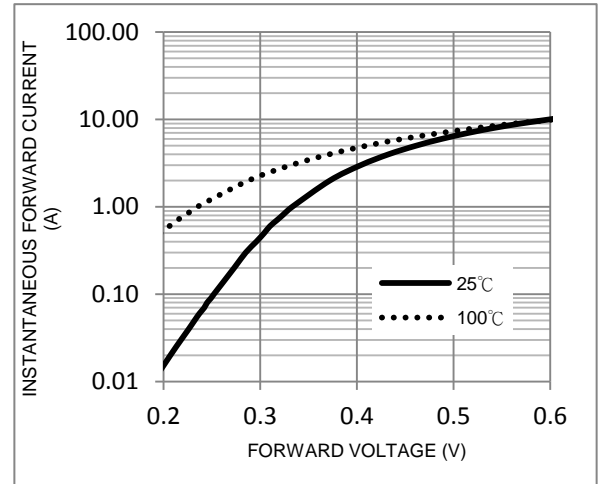


FIG. 3-Maximum Non-Repetitive Forward Surge Current

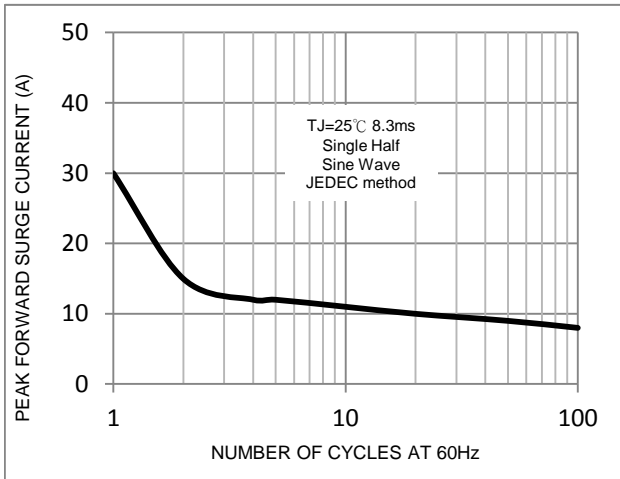


FIG. 4-Typical Reverse Characteristics

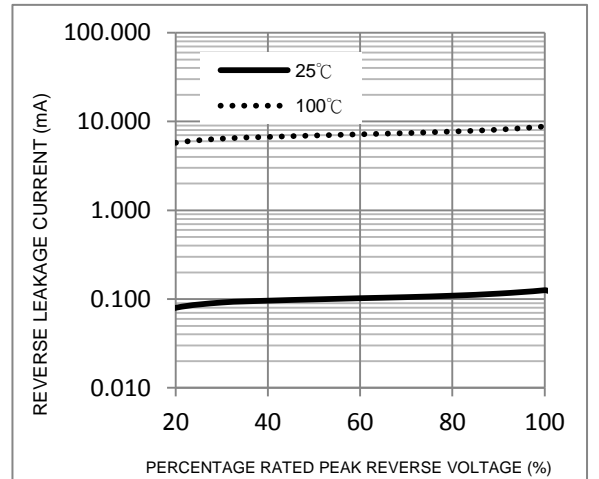
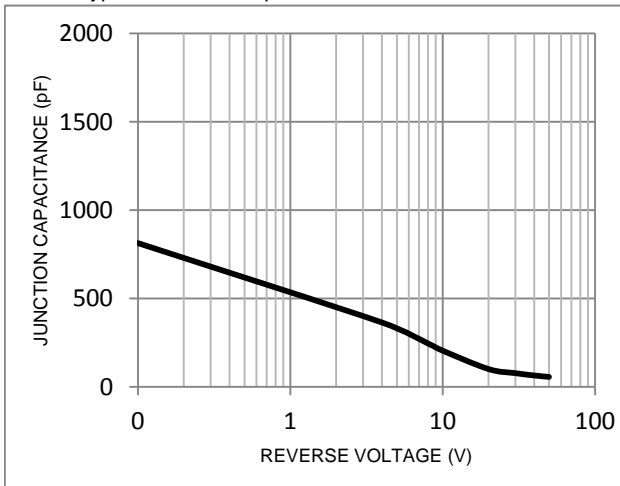
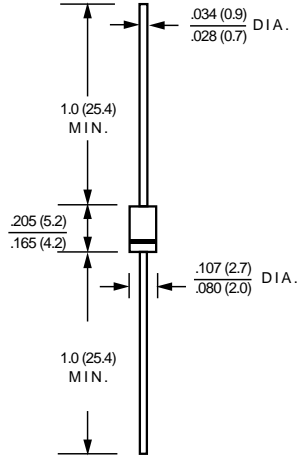


FIG. 5-Typical Junction Capacitance





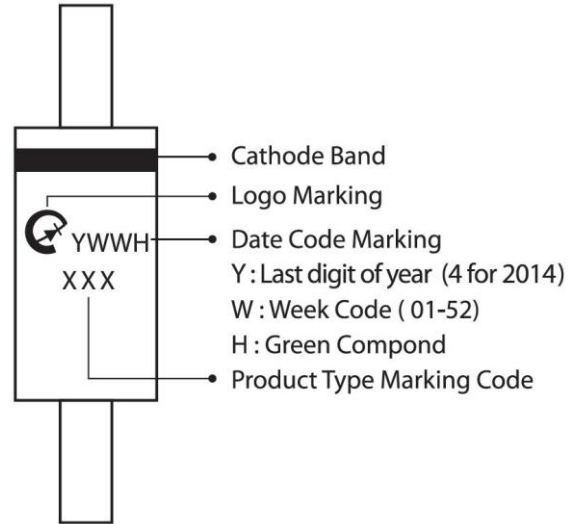
**Package Outline Dimensions**



**DO-41**

Dimensions in inches and (millimeters)

**Marking Information**



**Ammo Box Packing**

Package	Inner	BOX	Inner Box	Carton	Carton Size	Gross Weight
	Pack	(EA)	(mm)	(EA)	(mm)	(Kg)-Approx.
DO-41(DO-204AL)-52mm	Reel	5,000	245x75x90	50,000	440x280x335	18.2