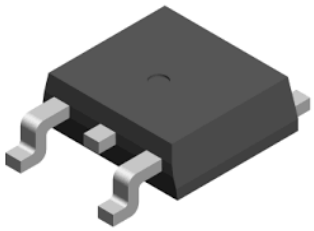
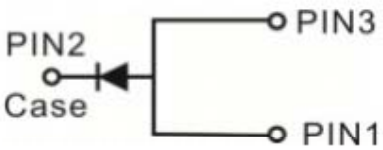
EBRT10L100SD

SCHOTTKY RECTIFIER



D-PAK



Features
• Ultra Low Forward Voltage Drop
• Excellent High Temperature Stability
• Patented Super Barrier Rectifier Technology
• Soft, Fast Switching Capability

MECHANICAL DATA
• Case: D-PAK
• 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

Ordering Information		
Part No.	Package	Packing
EBRT10L100SD	D-PAK	75pcs / Tube
EBRT10L100SD	D-PAK	2.5Kpcs / 13" Reel

Maximum Ratings (T_A=25°C unless otherwise noted)			
Parameter	**SYMBOL**	**VALUE**	**Unit**
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum rms voltage	V_{RMS}	70	V
Maximum average forward rectified current per device	$I_{F(AV)}$	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per device	I_{FSM}	150	A
Typical junction capacitance (VR=4V, f=1MHz)	C_J	620	pF
Typical thermal resistance per diode (Note 1)	$R_{\Theta JC}$	15	°C/W
Operating junction temperature range	T_J	-55 to + 150	°C
Storage temperature range	T_{STG}	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.

Electrical Characteristics (T_A=25°C unless otherwise noted)(EACH DIODE)							
Parameter	**Conditions**		**Symbol**	**Min.**	**Typ.**	**Max.**	**Unit**
Breakdown voltage per diode	I_R=0.5mA		V_{BR}	100	–	–	V
Instantaneous forward voltage per diode	I_F=3A	T_J =-25°C	V_F	–	0.52	–	V
	I_F = 5A			–	0.58	–	
	I_F = 10A			–	0.70	0.75	
	I_F=3A	T_J =-125°C		–	0.45	–	V
	I_F=5A			–	0.53	–	
	I_F=10A			–	0.65	–	
Reverse current per diode	V_R=70V		I_R	–	5	–	μA
	V_R=100V	T_J =-25°C		–	–	50	μA
		T_J =-125°C		–	7.2	–	mA

Rating and Characteristics Curves

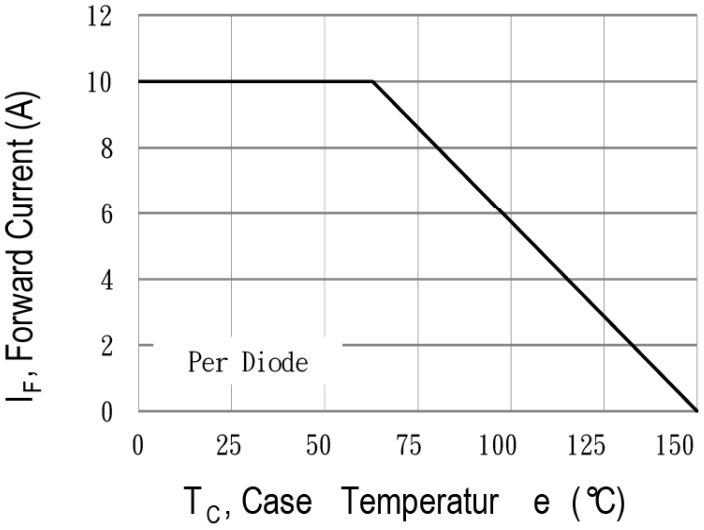


Fig.1 Forward Current Derating Curve

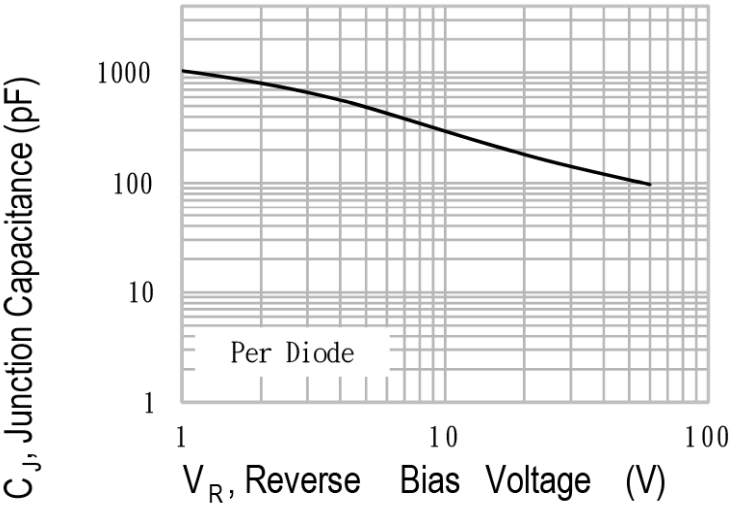


Fig.2 Ty pical Junction Capacitance

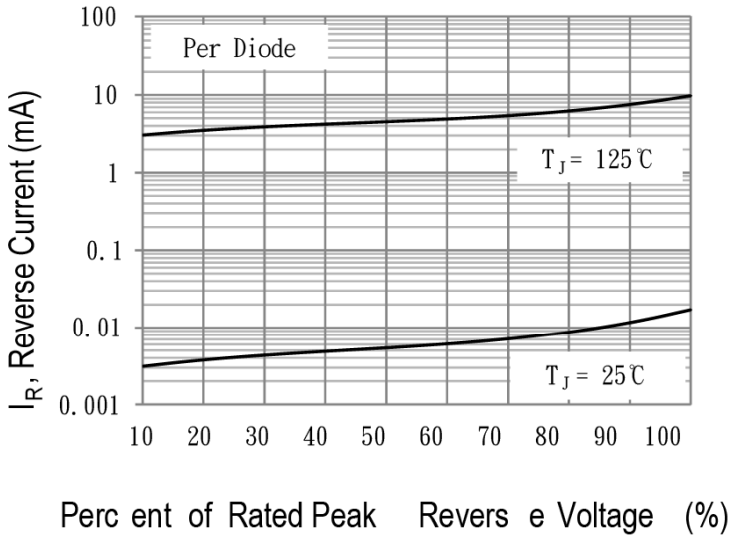


Fig.3 Ty pical Reverse Characteristics

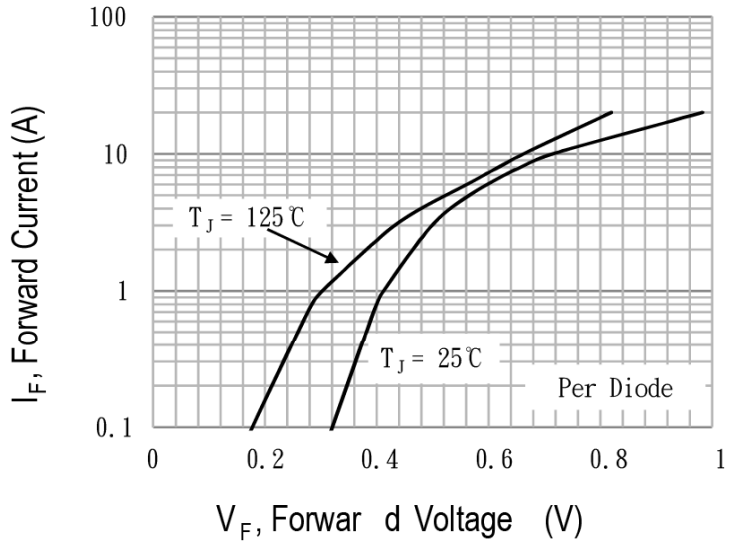
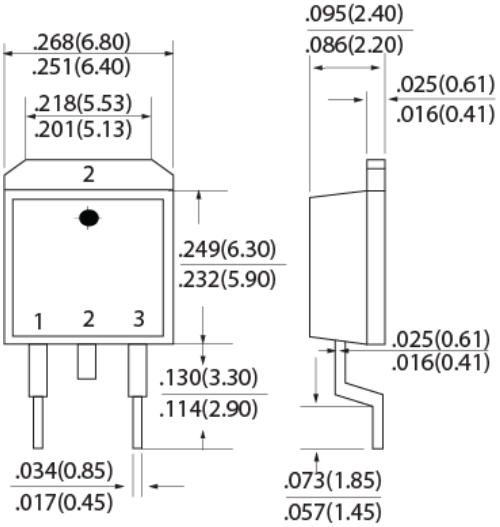


Fig.4 Ty pical Forw ard Characteristics

Package Outline Dimensions

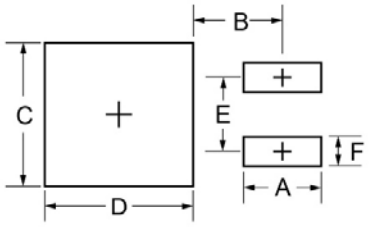


D-PAK

Dimensions in inches and (millimeters)

Suggested Pad Layout

Outline / Symbol	D-PAK millimeters
A	2.00
B	3.70
C	5.80
D	5.85
E	4.57
F	1.20



Tape & Reel Specification

Item	Symbol	D-PAK
		(mm)
Carrier width	A	6.9±0.10
Carrier length	B	10.5±0.10
Carrier depth	C	2.7±0.10
Sprocket hole	d	1.55±0.10
Reel outside diameter	D	330±2
Reel inner diameter	D1	100±1
Feed hole width	D2	21±1
Sprocket hole position	E	1.75 ±0.10
Punch hole position	F	7.5±0.10
Punch hole pitch	P	8.00±0.10
Sprocket hole pitch	P0	4.00±0.10
Embossment center	P1	2.00 ±0.10
Tape width	W	16.00+0.3/-0.1
Reel width	W1	16.40±1