

### D-PAK(TO-252)

#### Features

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

#### Primary Characteristics

$I_F$	10	A
$V_{RRM}$	150	V
$I_{FSM}$	150	A
$V_F$	0.9	V
$T_J \text{ max}$	150	°C

#### Mechanical Data

- Case : D-PAK(TO-252)
- 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
- External Lead-Free Finish

#### Ordering Information

Part No.	Remark	Package	Packing
EBRT10L150SD	RoHS Compliant	D-PAK	3000 / Tape & Reel
EBRT10L150SD-H	Halogen Free		

#### Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	150	V
Maximum RMS Voltage	$V_{RMS}$	105	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 Thermal Resistance (per device)	$R_{\theta JC}$	8	°C/W
Operating Junction Temperature Range	$T_J$	-55 to + 150	°C
Storage Temperature Range	$T_{STG}$	-55 to + 150	°C

#### Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage (per device)	$I_R=0.5\text{mA}$ $T_J=25^\circ\text{C}$	$V_{BR}$	150	—	—	V
Instantaneous Forward Voltage (per device)	$I_F=1\text{A}$	$V_F$	—	0.52	—	V
	$I_F=5\text{A}$ $T_J=-25^\circ\text{C}$		—	0.73	—	
	$I_F=10\text{A}$		—	0.85	0.9	V
	$I_F=1\text{A}$ $T_J=125^\circ\text{C}$		—	0.49	—	
Reverse Current (per device)	$V_R=105\text{V}$ $T_J=25^\circ\text{C}$	$I_R$	—	5	—	$\mu\text{A}$
	$V_R=150\text{V}$ $T_J=25^\circ\text{C}$		—	—	50	$\mu\text{A}$
	$V_R=150\text{V}$ $T_J=125^\circ\text{C}$		—	3	—	mA



### Rating and Characteristics Curves

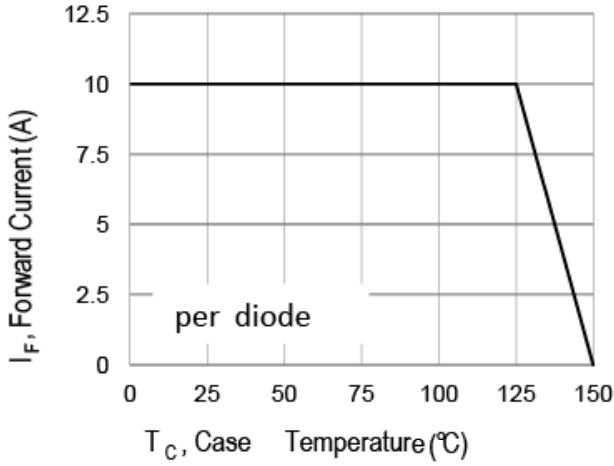


Fig.1 Forward Current Derating Curve

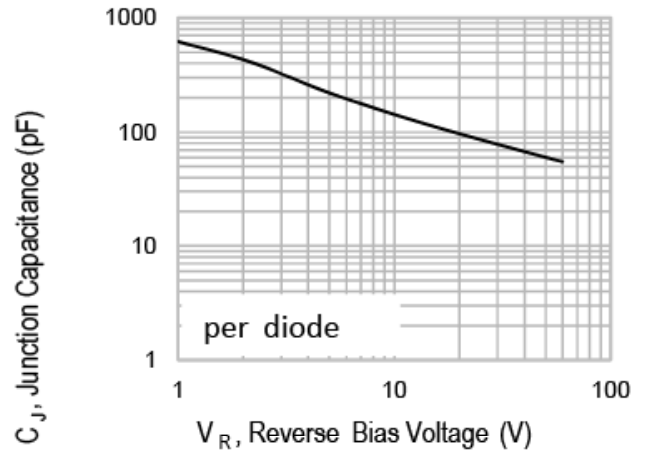


Fig.2 Typical Junction Capacitance

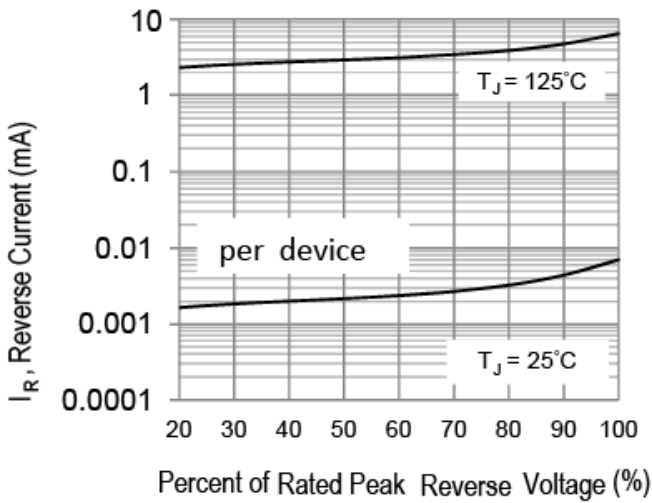


Fig.3 Typical Reverse Characteristics

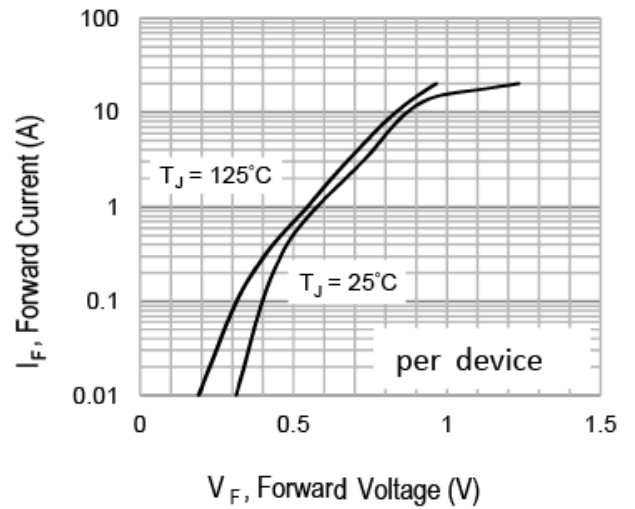
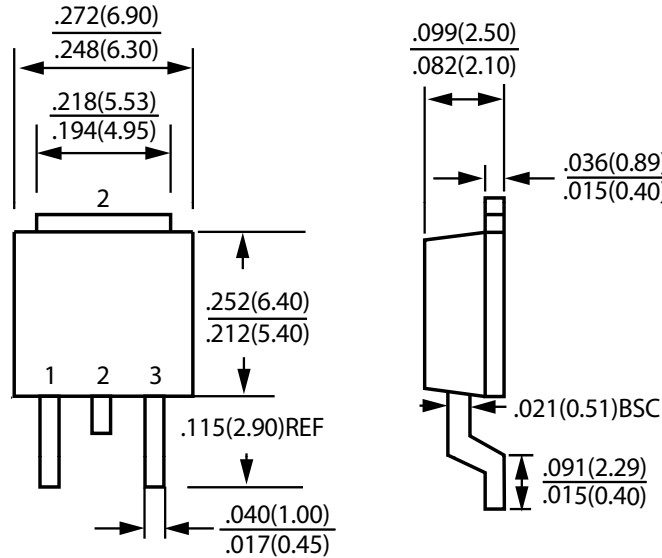


Fig.4 Typical Forward Characteristics



Package Outline Dimensions

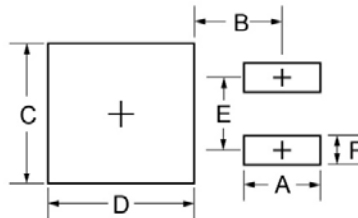


D-PAK(TO-252)

Dimensions in inches and (millimeters)

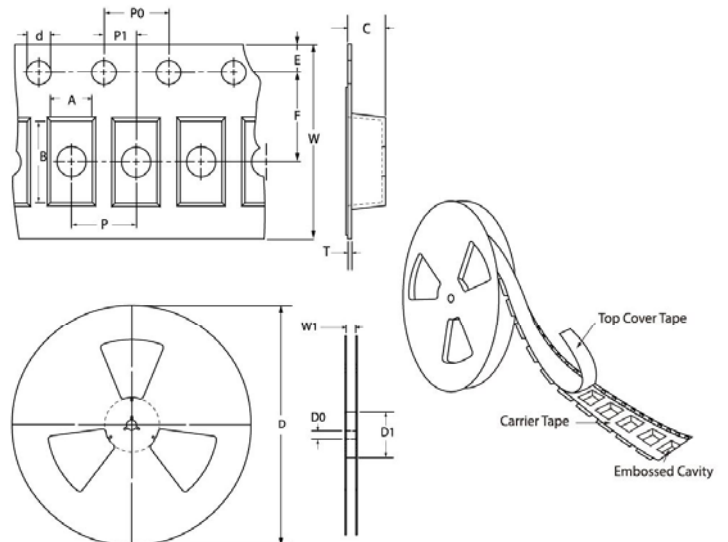
Suggested Pad Layout

Symbol	Outline	D-PAK (TO-252) (mm)
A		3.00
B		3.70
C		6.00
D		6.50
E		4.60
F		1.40



Tape & Reel Specification

Item	Symbol	D-PAK (TO-252) (mm)
Carrier width	A	6.93 ± 0.13
Carrier length	B	10.5±0.10
Carrier depth	C	2.72 ± 0.17
Sprocket hole	d	1.55 ± 0.10
Reel outside diameter	D	330 ± 2.0
Reel inner diameter	D1	90 (min)
Feed hole width	D0	13 (min)
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	7.50 ± 0.10
Punch hole pitch	P	8.00 ± 0.10
Sprocket hole pitch	P0	4.00 ± 0.2
Embossment center	P1	2.00 ± 0.10
Tape width	W	16.00 ± 0.3
Reel width	W1	16.30 ± 0.9





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