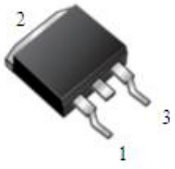
HBR40150BCT&HBR40150HCT

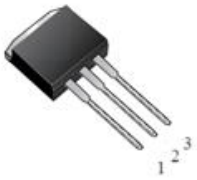
40.0AMPS. SCHOTTKY BARRIER RECTIFIERS

FEATURE

. High current capability
. Low forward voltage drop
. Low power loss, high efficiency
. High surge capability
. High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case.



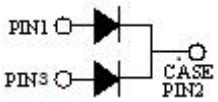
TO-263-2L
HBR40150BCT



TO-262-3L
HBR40150HCT

MECHANICAL DATA

. Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
. Mounting position: any



Single phase, half wave, 60Hz,resistive or inductive load.
For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25℃ unless otherwise noted)

Parameter	Symbol	HBR40150BCT&HBR40150HCT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS Voltage	V_{RMS}	105	V
Maximum DC blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current at T_C =100°C *Total device*	$I_{F(AV)}$	20.0 40.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250.0	A
Typical Junction Capacitance (Note 1)	C_J	300	pF
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +175	℃

ELECTRICAL CHARACTERISTICS-(per leg) (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test conditions		Typ	Max	Units
Forward voltage drop	V_F	T_J=25℃	I_F=3A	0.67	---	V
			I_F=5A	0.71	---	
			I_F=20A	0.84	0.90	
		T_J=125℃	I_F=3A	0.55	---	
			I_F=5A	0.58	---	
			I_F=20A	0.74	0.80	
Reverse leakage current	I_R	T_J=25℃	V_R=150V	---	20	uA
		T_J=125℃	V_R=150V	---	10	mA

THERMAL CHARACTERISTICS(T_C=25℃ unless otherwise noted)

Parameter	Symbol	HBR40150BCT	HBR40150HCT	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.0	2.0	℃/W

Notes:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

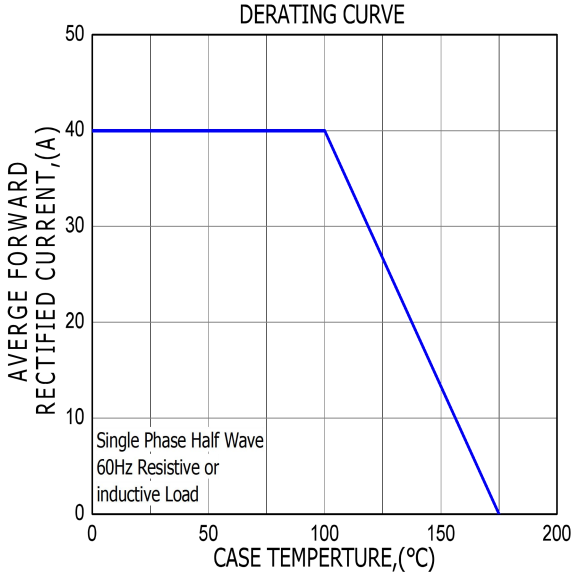


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

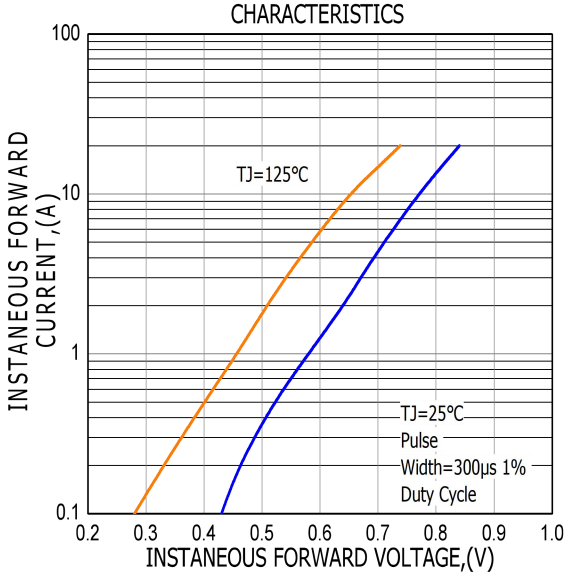


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

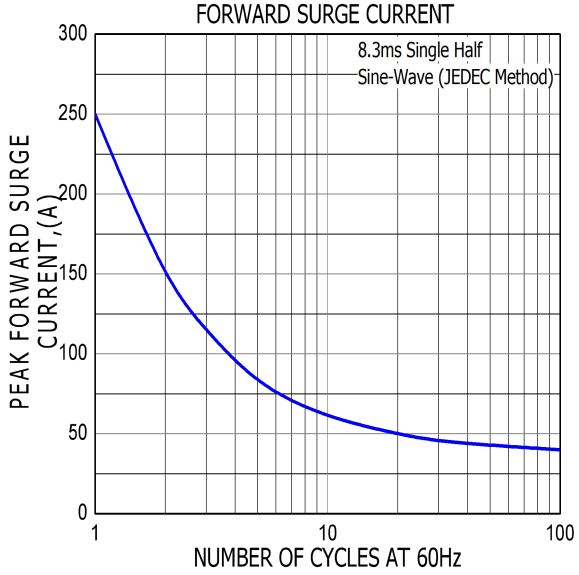
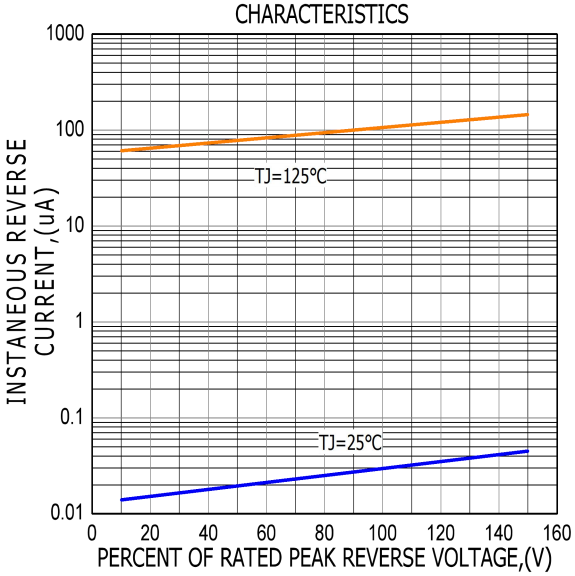


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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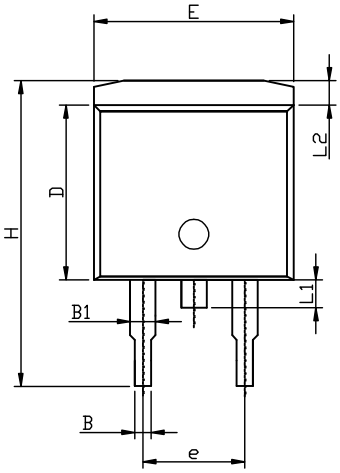
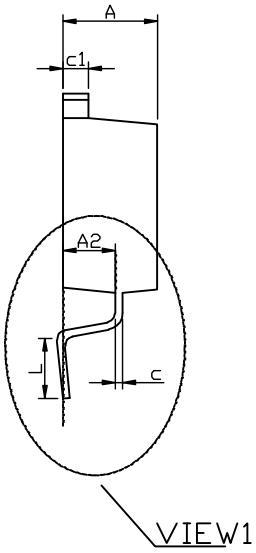
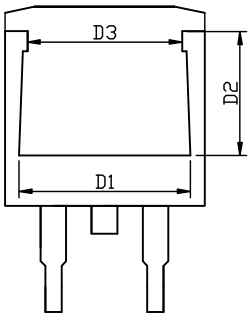
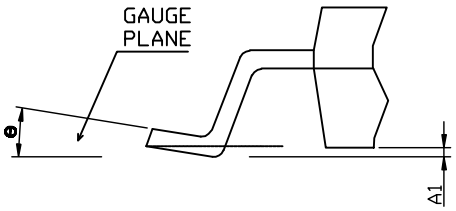


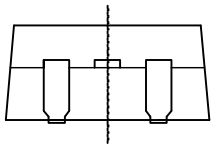


VIEW1

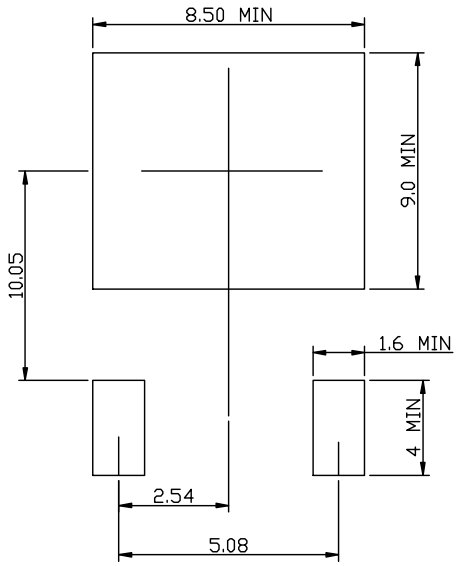




VIEW1



RECOMMENDED LAND PATTERN



	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	0.05	0.15	0.30
A2	2.45	2.60	2.70
B	0.72	0.82	0.92
B1	1.12	1.27	1.42
c	0.28	0.38	0.48
c1	1.17	1.27	1.37
D	8.46	8.66	8.86
D1	7.90	8.10	8.40
D2	5.50	5.70	5.90
D3	7.10	7.30	7.50
E	9.85	10.15	10.45
e		5.08BCS	
H	14.75	15.15	15.55
L	2.30	2.55	2.80
L1	1.20	1.40	1.60
L2	1.01	1.23	1.50
θ	0°	7°	8°

UNIT: mm

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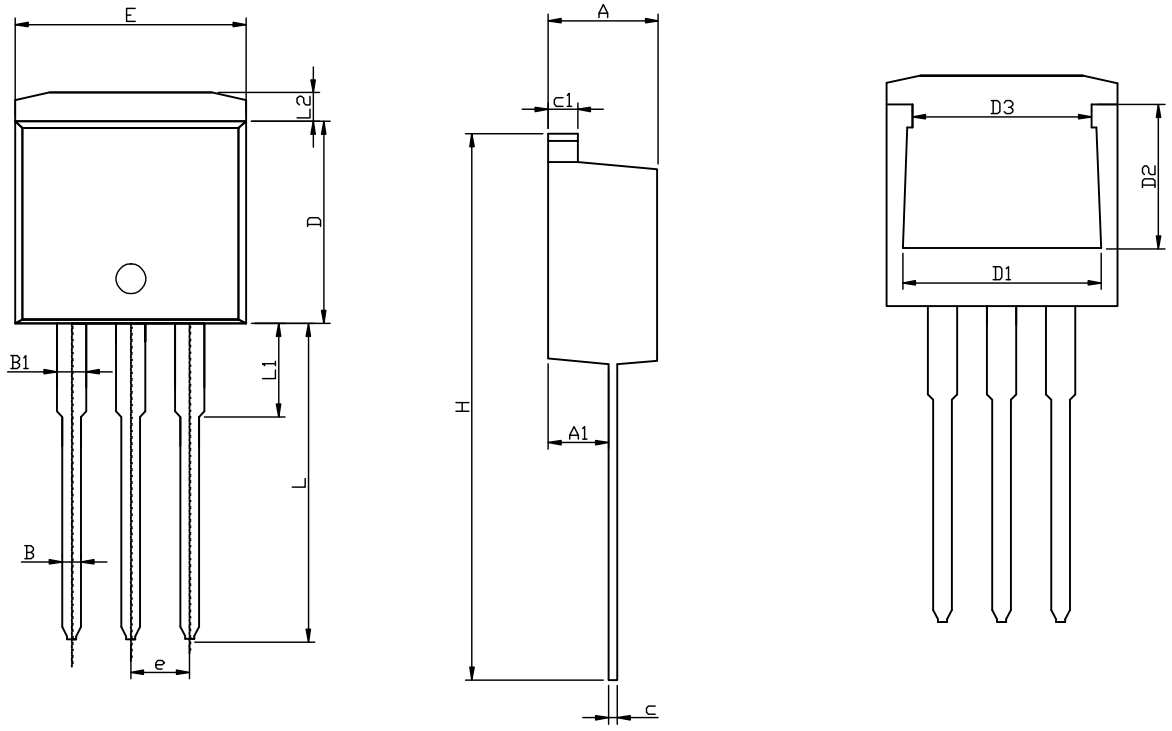

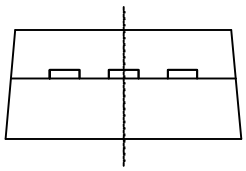

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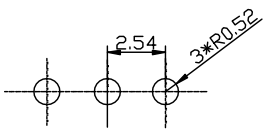

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c1	1.17	1.27	1.37
D	8.46	8.66	8.86
D1	7.90	8.10	8.40
D2	5.50	5.70	5.90
D3	7.10	7.30	7.50
E	9.85	10.15	10.45
e		2.54	
H	23.20	23.60	24.00
L	13.10	13.60	14.10
L1	3.85	4.05	4.35
L2	1.01	1.23	1.50