/ Descriptions

45V 5.0A SMBF

Surface Mount Schottky Barrier Rectifier, Reverse Voltage:45V,Forward Current:5.0A,SMBF thin package.

/ Features

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications,For surface mounted applications.Halogen free product.

/ Applications

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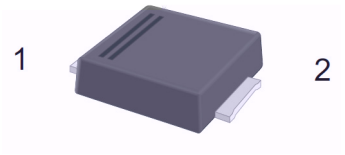
General purpose.

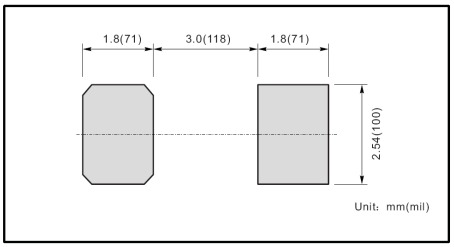
/ Equivalent Circuit

/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

Type number	Marking code
BRLV5T45BF	5T4

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Maximum DC Blocking Voltage	V_R	45	V
Maximum RMS voltage	V_{RMS}	32	V
Maximum Average Forward Rectified Current	$I_{F\ AV}$	5.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Typical Junction Capacitance[1)]	C_j	500	pF
Typical Thermal Resistance[2)]	$R_{\ JA}$	135	/W
Operating Junction Temperature Range	T_j	-55~+150	
Storage Temperature Range	T_{stg}	-55~+150	

Notes:

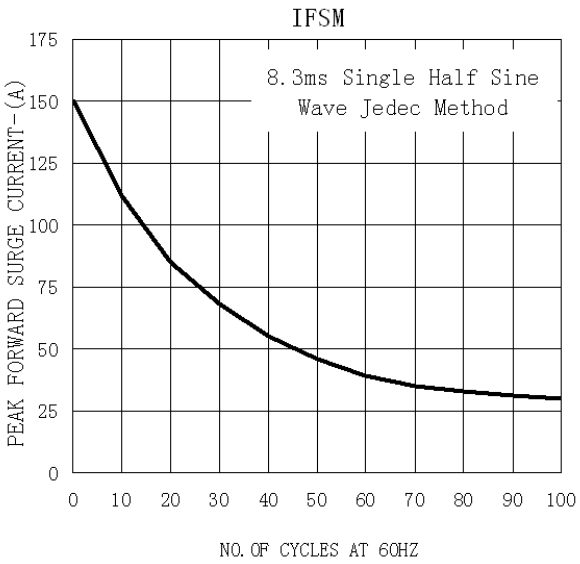
1) Mounted at 1MHz and applied reverse voltage of 4V D.C.

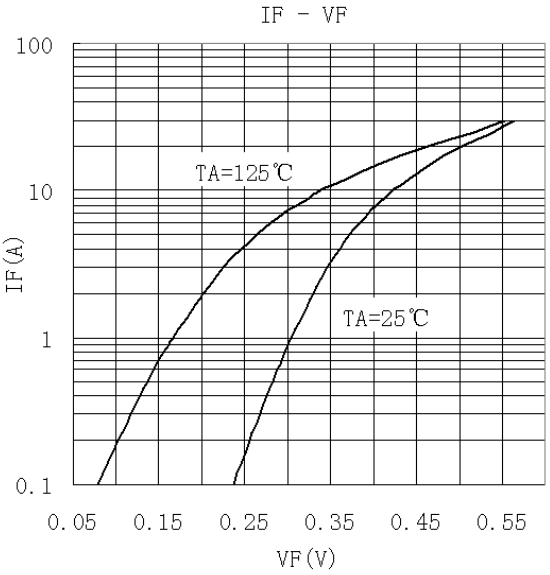
2) Mounted on a FR4 PCB, single-sided copper, mini pad.

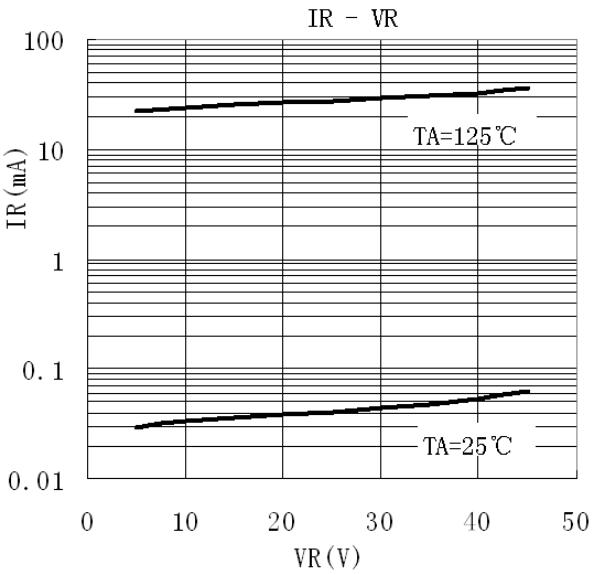
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test condition	Rating			Unit
			MIN.	TYP.	MAX.	
Breakdown Voltage	V_{BR}	I_R=0.5mA Ta=25	45			V
Max Instantaneous Forward Voltage	V_F	I_F=1.0A Ta=25		0.30		V
		I_F=1.0A Ta=125		0.18		
		I_F=5.0A Ta=25		0.39	0.43	
		I_F=5.0A Ta=125		0.29		
Maximum DC Reverse Current at Rated DC Reverse Voltage	I_R	V_R=36V T_a=25		30		μA
		V_R=45V T_a=25			210	μA
		V_R=45V T_a=125		19		mA

/ Electrical Characteristic Curve

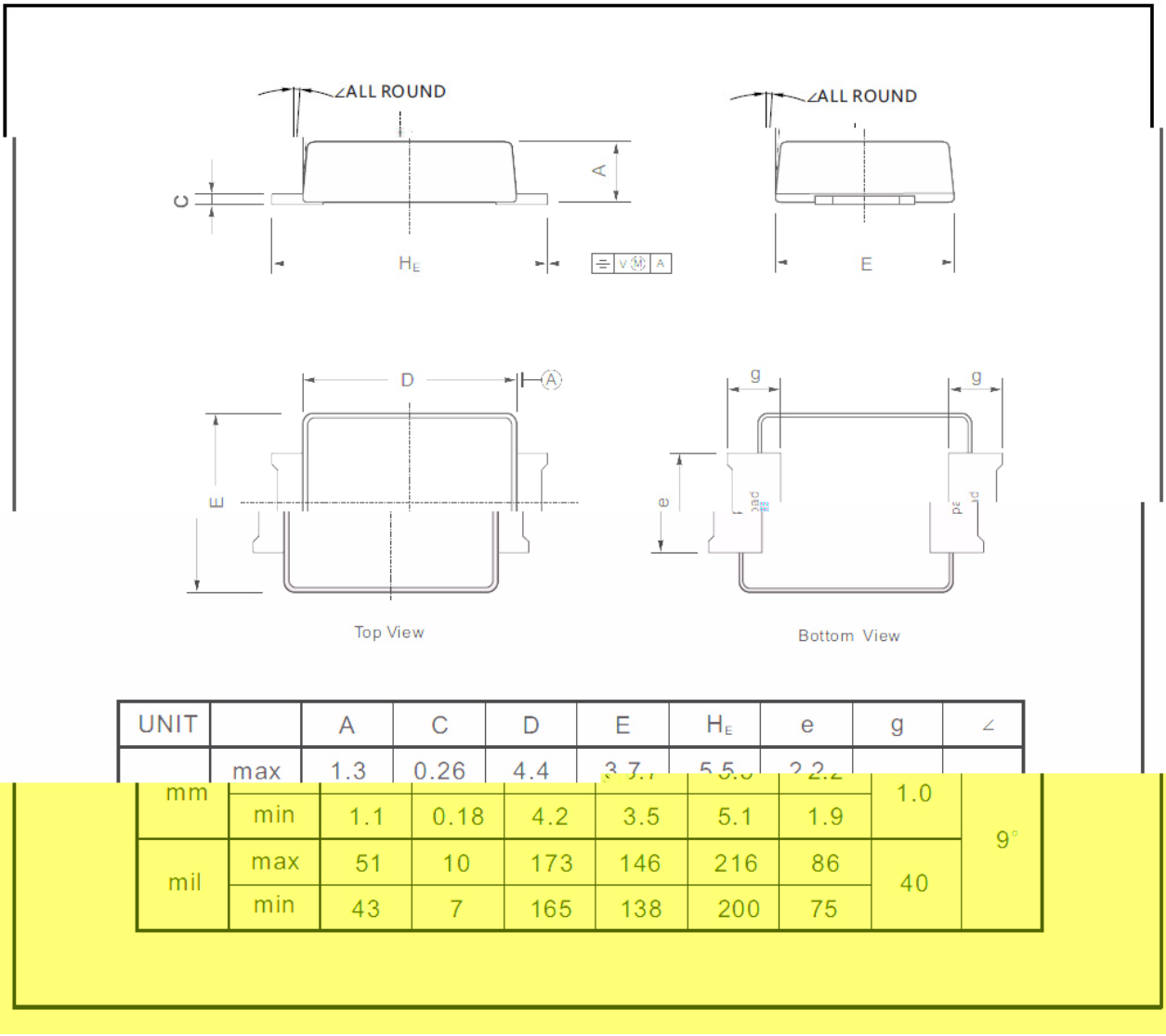






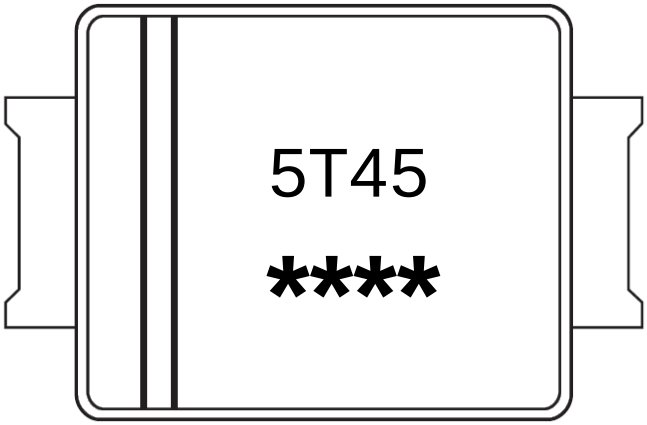
/ Package Dimensions

SMBF



UNIT		A	C	D	E	H_E	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		

/ Marking Instructions



5T45

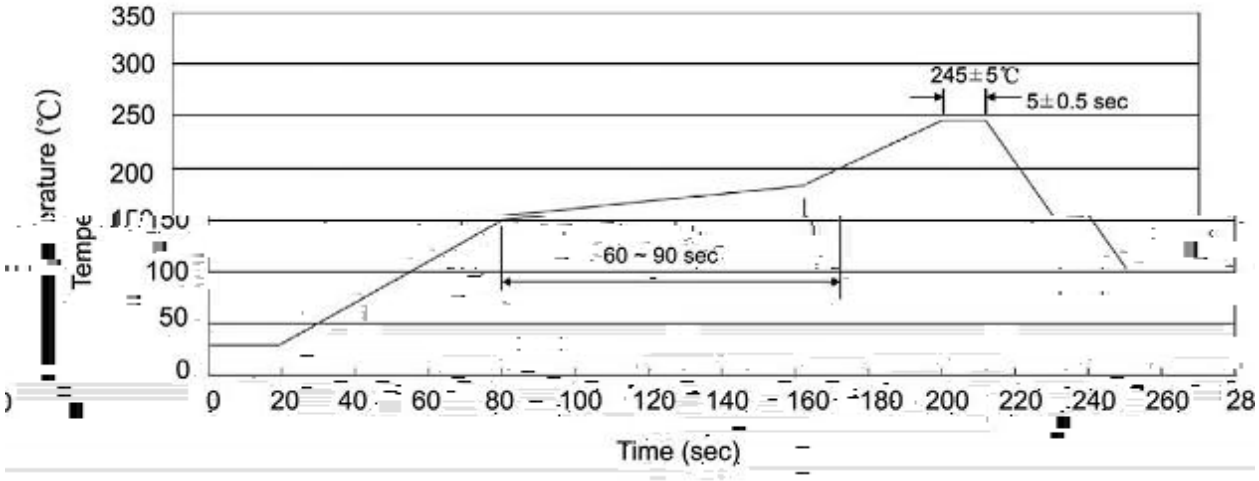
**** 1 * 3 *

Note:

5T45 Product Type Code

**** Lot No. Code The 1st * means:YM Code The last 3 * means:little Lot No Code

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



			Note:
1	150 180	60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245±5	5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3	2 10 /sec.		3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm^3)
SMBF	5000	2	10000	5	50000	13 ×15	336X332X40	380X335X366

/ Notices