

/ Descriptions

TO-263

Schottky Diode in a TO-263 Plastic Package.

/ Features

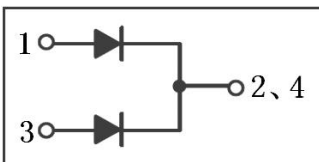
AEC-Q101

Low power loss, high efficiency, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

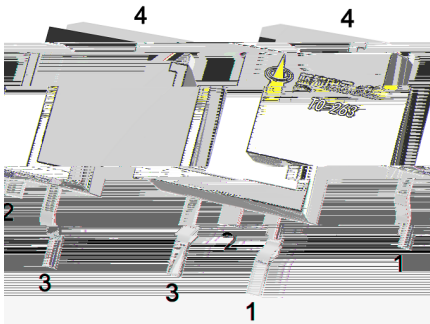
/ Applications

For use in low voltage,high frequency inverters, free wheeling, and polarity protection applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 Anode

PIN 2 4 Cathode

PIN 3 Anode

/ Marking

See Marking Instructions.

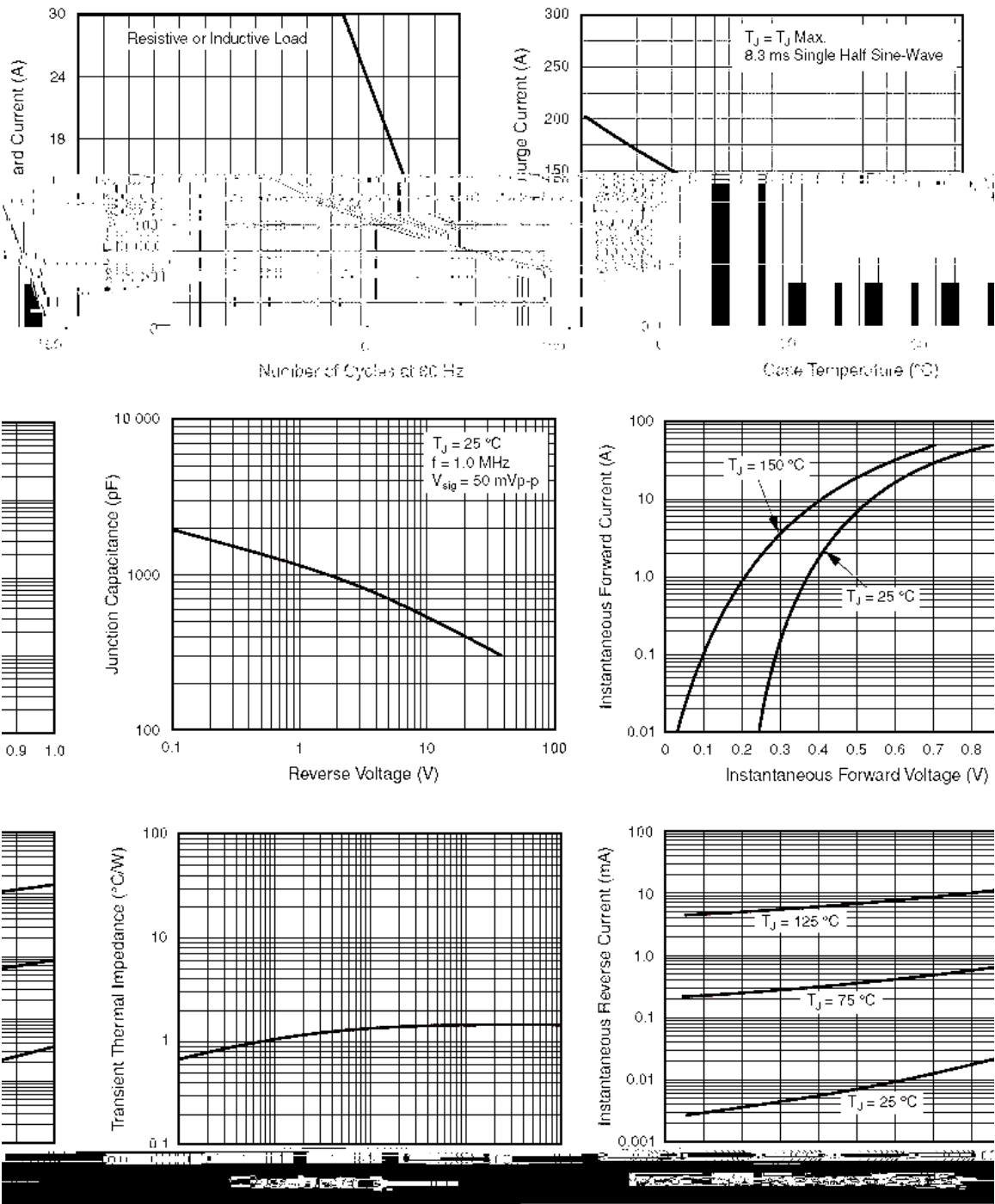
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Peak Repetitive Forward Current	$I_{F(AV)}$	15	A
	$I_{F(AV)}$ total device	30	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	200	A
Repetitive Peak Reverse Surge Current	I_{RRM}	2.0	A
Thermal Resistance Junction to Case	R_{JC}	1.5	/W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-65 150	

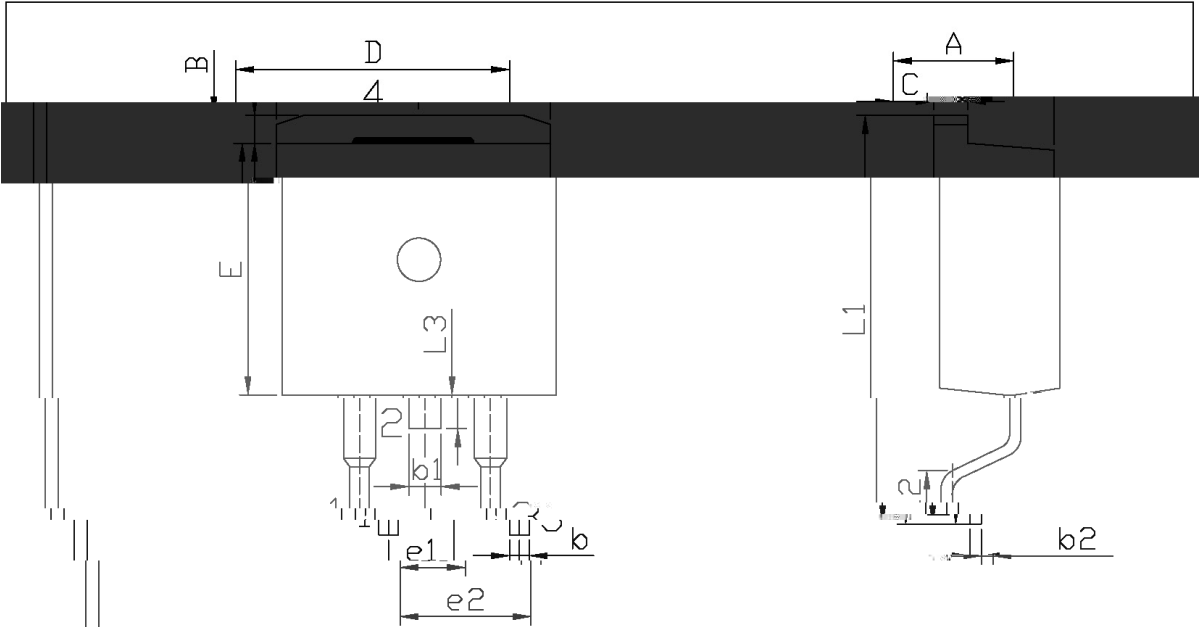
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=30\text{A}(T_c=25^\circ\text{C})$			0.76	V
		$I_F=20\text{A}(T_c=125^\circ\text{C})$			0.60	V
		$I_F=30\text{A}(T_c=125^\circ\text{C})$			0.72	V
Instantaneous Reverse Current	I_R	$T_j=25$			1.0	mA
		$T_j=125$			60	mA
Voltage Rate of Change	dv/dt				10000	V/ s

/ Electrical Characteristic Curve

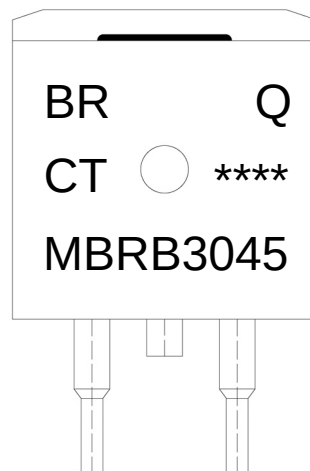


/ Package Dimensions



单位: mm							
Dimensions In Millimeters	Symbol	Min	Max	Dimensions In Millimeters	Symbol	Min	Max
4.30	A	4.30	4.70	9.00	E	9.00	9.50
1.30	B	1.30	1.40	2.34	e1	2.34	2.54
1.40	C	1.40	1.50	2.54	e2	2.54	2.74
1.50	D	1.50	1.60	2.74	e	2.74	2.94
1.60	E	1.60	1.70	2.94	e	2.94	3.14
1.70	F	1.70	1.80	3.14	f	3.14	3.34
1.80	G	1.80	1.90	3.34	g	3.34	3.54
1.90	H	1.90	2.00	3.54	h	3.54	3.74
2.00	I	2.00	2.10	3.74	i	3.74	3.94
2.10	J	2.10	2.20	3.94	j	3.94	4.14
2.20	K	2.20	2.30	4.14	k	4.14	4.34
2.30	L	2.30	2.40	4.34	l	4.34	4.54
2.40	M	2.40	2.50	4.54	m	4.54	4.74
2.50	N	2.50	2.60	4.74	n	4.74	4.94
2.60	O	2.60	2.70	4.94	o	4.94	5.14
2.70	P	2.70	2.80	5.14	p	5.14	5.34
2.80	Q	2.80	2.90	5.34	q	5.34	5.54
2.90	R	2.90	3.00	5.54	r	5.54	5.74
3.00	S	3.00	3.10	5.74	s	5.74	5.94
3.10	T	3.10	3.20	5.94	t	5.94	6.14
3.20	U	3.20	3.30	6.14	u	6.14	6.34
3.30	V	3.30	3.40	6.34	v	6.34	6.54
3.40	W	3.40	3.50	6.54	w	6.54	6.74
3.50	X	3.50	3.60	6.74	x	6.74	6.94
3.60	Y	3.60	3.70	6.94	y	6.94	7.14
3.70	Z	3.70	3.80	7.14	z	7.14	7.34
3.80	AA	3.80	3.90	7.34	aa	7.34	7.54
3.90	AB	3.90	4.00	7.54	ab	7.54	7.74
4.00	AC	4.00	4.10	7.74	ac	7.74	7.94
4.10	AD	4.10	4.20	7.94	ad	7.94	8.14
4.20	AE	4.20	4.30	8.14	ae	8.14	8.34
4.30	AF	4.30	4.40	8.34	af	8.34	8.54
4.40	AG	4.40	4.50	8.54	ag	8.54	8.74
4.50	AH	4.50	4.60	8.74	ah	8.74	8.94
4.60	AI	4.60	4.70	8.94	ai	8.94	9.14
4.70	AJ	4.70	4.80	9.14	aj	9.14	9.34
4.80	AK	4.80	4.90	9.34	ak	9.34	9.54
4.90	AL	4.90	5.00	9.54	al	9.54	9.74
5.00	AM	5.00	5.10	9.74	am	9.74	9.94
5.10	AN	5.10	5.20	9.94	an	9.94	10.14
5.20	AO	5.20	5.30	10.14	ao	10.14	10.34
5.30	AP	5.30	5.40	10.34	ap	10.34	10.54
5.40	AQ	5.40	5.50	10.54	aq	10.54	10.74
5.50	AR	5.50	5.60	10.74	ar	10.74	10.94
5.60	AS	5.60	5.70	10.94	as	10.94	11.14
5.70	AT	5.70	5.80	11.14	at	11.14	11.34
5.80	AU	5.80	5.90	11.34	au	11.34	11.54
5.90	AV	5.90	6.00	11.54	av	11.54	11.74
6.00	AW	6.00	6.10	11.74	aw	11.74	11.94
6.10	AX	6.10	6.20	11.94	ax	11.94	12.14
6.20	AY	6.20	6.30	12.14	ay	12.14	12.34
6.30	AZ	6.30	6.40	12.34	az	12.34	12.54
6.40	BA	6.40	6.50	12.54	ba	12.54	12.74
6.50	BB	6.50	6.60	12.74	bb	12.74	12.94
6.60	BC	6.60	6.70	12.94	bc	12.94	13.14
6.70	BD	6.70	6.80	13.14	bd	13.14	13.34
6.80	BE	6.80	6.90	13.34	be	13.34	13.54
6.90	BF	6.90	7.00	13.54	bf	13.54	13.74
7.00	BG	7.00	7.10	13.74	bg	13.74	13.94
7.10	BH	7.10	7.20	13.94	bh	13.94	14.14
7.20	BI	7.20	7.30	14.14	bi	14.14	14.34
7.30	BJ	7.30	7.40	14.34	bj	14.34	14.54
7.40	BK	7.40	7.50	14.54	bk	14.54	14.74
7.50	BL	7.50	7.60	14.74	bl	14.74	14.94
7.60	BM	7.60	7.70	14.94	bm	14.94	15.14
7.70	BN	7.70	7.80	15.14	bn	15.14	15.34
7.80	BO	7.80	7.90	15.34	bo	15.34	15.54
7.90	BP	7.90	8.00	15.54	bp	15.54	15.74
8.00	BQ	8.00	8.10	15.74	bq	15.74	15.94
8.10	BR	8.10	8.20	15.94	br	15.94	16.14
8.20	BS	8.20	8.30	16.14	bs	16.14	16.34
8.30	BT	8.30	8.40	16.34	bt	16.34	16.54
8.40	BU	8.40	8.50	16.54	bu	16.54	16.74
8.50	BV	8.50	8.60	16.74	bv	16.74	16.94
8.60	BW	8.60	8.70	16.94	bw	16.94	17.14
8.70	BX	8.70	8.80	17.14	bx	17.14	17.34
8.80	BY	8.80	8.90	17.34	by	17.34	17.54
8.90	BZ	8.90	9.00	17.54	bz	17.54	17.74
9.00	CA	9.00	9.10	17.74	ca	17.74	17.94
9.10	CB	9.10	9.20	17.94	cb	17.94	18.14
9.20	CC	9.20	9.30	18.14	cc	18.14	18.34
9.30	CD	9.30	9.40	18.34	cd	18.34	18.54
9.40	CE	9.40	9.50	18.54	ce	18.54	18.74
9.50	CF	9.50	9.60	18.74	cf	18.74	18.94
9.60	CG	9.60	9.70	18.94	cg	18.94	19.14
9.70	CH	9.70	9.80	19.14	ch	19.14	19.34
9.80	CI	9.80	9.90	19.34	ci	19.34	19.54
9.90	CJ	9.90	10.00	19.54	cj	19.54	19.74
10.00	CK	10.00	10.10	19.74	ck	19.74	19.94
10.10	CL	10.10	10.20	19.94	cl	19.94	20.14
10.20	CM	10.20	10.30	20.14	cm	20.14	20.34
10.30	CN	10.30	10.40	20.34	cn	20.34	20.54
10.40	CO	10.40	10.50	20.54	co	20.54	20.74
10.50	CP	10.50	10.60	20.74	cp	20.74	20.94
10.60	CQ	10.60	10.70	20.94	cq	20.94	21.14
10.70	CR	10.70	10.80	21.14	cr	21.14	21.34
10.80	CS	10.80	10.90	21.34	cs	21.34	21.54
10.90	CT	10.90	11.00	21.54	ct	21.54	21.74
11.00	CU	11.00	11.10	21.74	cu	21.74	21.94
11.10	CV	11.10	11.20	21.94	cv	21.94	22.14
11.20	CW	11.20	11.30	22.14	cw	22.14	22.34
11.30	CX	11.30	11.40	22.34	cx	22.34	22.54
11.40	CY	11.40	11.50	22.54	cy	22.54	22.74
11.50	CZ	11.50	11.60	22.74	cz	22.74	22.94
11.60	DA	11.60	11.70	22.94	da	22.94	23.14
11.70	DB	11.70	11.80	23.14	db	23.14	23.34
11.80	DC	11.80	11.90	23.34	dc	23.34	23.54
11.90	DD	11.90	12.00	23.54	dd	23.54	23.74
12.00	DE	12.00	12.10	23.74	de	23.74	23.94
12.10	DF	12.10	12.20	23.94	df	23.94	24.14
12.20	DG	12.20	12.30	24.14	dg	24.14	24.34
12.30	DH	12.30	12.40	24.34	dh	24.34	24.54
12.40	DI	12.40	12.50	24.54	di	24.54	24.74
12.50	DJ	12.50	12.60	24.74	dj	24.74	24.94
12.60	DK	12.60	12.70	24.94	dk	24.94	25.14
12.70	DL	12.70	12.80	25.14	dl	25.14	25.34
12.80	DM	12.80	12.90	25.34	dm	25.34	25.54
12.90	DN	12.90	13.00	25.54	dn	25.54	25.74
13.00	DO	13.00	13.10	25.74	do	25.74	25.94
13.10	DP	13.10	13.20	25.94	dp	25.94	26.14
13.20	DQ	13.20	13.30	26.14	dq	26.14	26.34
13.30	DR	13.30	13.40	26.34	dr	26.34	26.54
13.40	DS	13.40	13.50	26.54	ds	26.54	26.74
13.50	DT	13.50	13.60	26.74	dt	26.74	26.94
13.60	DU	13.60	13.70	26.94	du	26.94	27.14
13.70	DV	13.70	13.80	27.14	dv	27.14	27.34
13.80	DW	13.80	13.90	27.34	dw	27.34	27.54
13.90	DX	13.90	14.00	27.54	dx	27.54	27.74
14.00	DY	14.00	14.10	27.74	dy	27.74	27.94
14.10	DZ	14.10	14.20	27.94	dz	27.94	28.14
14.20	EA	14.20	14.30	28.14	ea	28.14	28.34
14.30	EB	14.30	14.40	28.34	eb	28.34	28.54
14.40	EC	14.40	14.50	28.54	ec	28.54	28.74
14.50	ED	14.50	14.60	28.74	ed	28.74	28.94
14.60	EE	14.60	14.70	28.94	ee	28.94	29.14
14.70	EF	14.70	14.80	29.14	ef	29.14	29.34
14.80	EG	14.80	14.90	29.34	eg	29.34	29.54
14.90	EH	14.90	15.00	29.54	eh	29.54	29.74
15.00	EI	15.00	15.10	29.74	ei	29.74	29.94
15.10	EJ	15.10	15.20	29.94	ej	29.94	30.14
15.20	EK	15.20	15.30	30.14	ek	30.14	30.34
15.30	EL	15.30	15.40	30.34	el	30.34	30.54
15.40	EM	15.40	15.50	30.54	em	30.54	30.74
15.50	EN	15.50	15.60	30.74	en	30.74	30.94
15.60	EO	15.60	15.70	30.94	eo	30.94	31.14
15.70	EP	15.70	15.80	31.14	ep	31.14	31.34
15.80	EQ	15.80	15.90	31.34	eq	31.34	31.54
15.90	ER	15.90	16.00	31.54	er	31.54	31.74
16.00	ES	16.00	16.10	31.74	es	31.74	31.94
16.10	ET	16.10	16.20	31.94	et	31.94	32.14
16.20	EU	16.20	16.30	32.14	eu	32.14	32.34
16.30	EV	16.30	16.40	32.34	ev	32.34	32.54
16.40	EW	16.40	16.50	32.54	ew	32.54	32.74
16.50	EX	16.50	16.60	32.74	ex	32.74	32.94
16.60	EY	16.60	16.70	32.94	ey	32.94	33.14
16.70	EZ	16.70	16.80	33.14	ez	33.14	33.34
16.80	FA	16.80	16.90	33.34	fa	33.34	33.54
16.90	FB	16.90					

/ Marking Instructions



BR

Q

MBRB3045

CT:

Note:

BR: Company Code

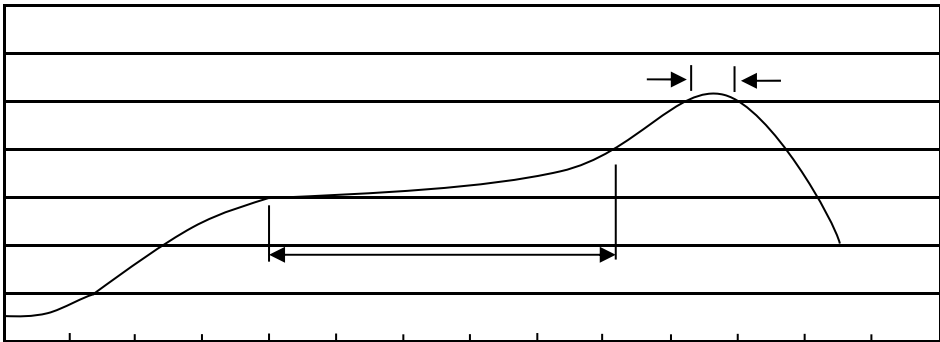
Q: Automobile halogen-free product Code

MBRB3045 Product Type Code

CT: Internal Structure

****: Lot No. Code, code change with Lot No

() /



Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±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)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
TO-263	800	1	800	6	4,800	13 ×24	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices