5 é / Descriptions

9 5 : .> / / x RK Ô Â 8 â ’ož Schottky barrier diodes in a SOT-23 Plastic Package.

¤ ª / Features

3 g • o v 4 k z 8 â ’ k 4 º Ì ” / x k … ` ' +) 7 ö Õ ä U ´ Å } L k —)í D }ož

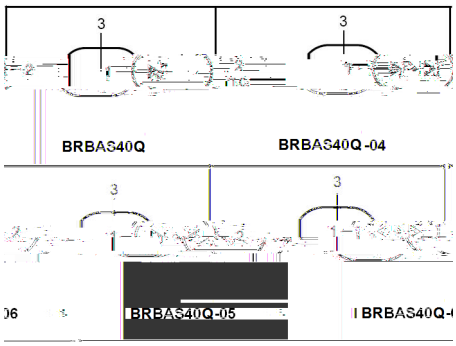
Low forward current, Low diode capacitance, small plastic SMD package, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

Ð ÷ / Applications

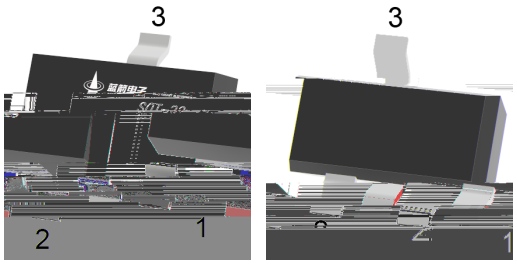
9 Ý ä , • ¼o• 9 \ yo• ‘ è k á V ñ • } Lož

Ultra high-speed switching, voltage clamping, protection circuits, Meet the stringent requirements of automotive applications.

Ã W] Ô · / Equivalent Circuit



• Û - æ / Pinning



PIN: See Equivalent Circuit.

, M V / Marking

Type	BRBAS40Q	BRBAS40Q-04	BRBAS40Q-05	BRBAS40Q-06
Marking	Q43	Q44	Q45	Q46

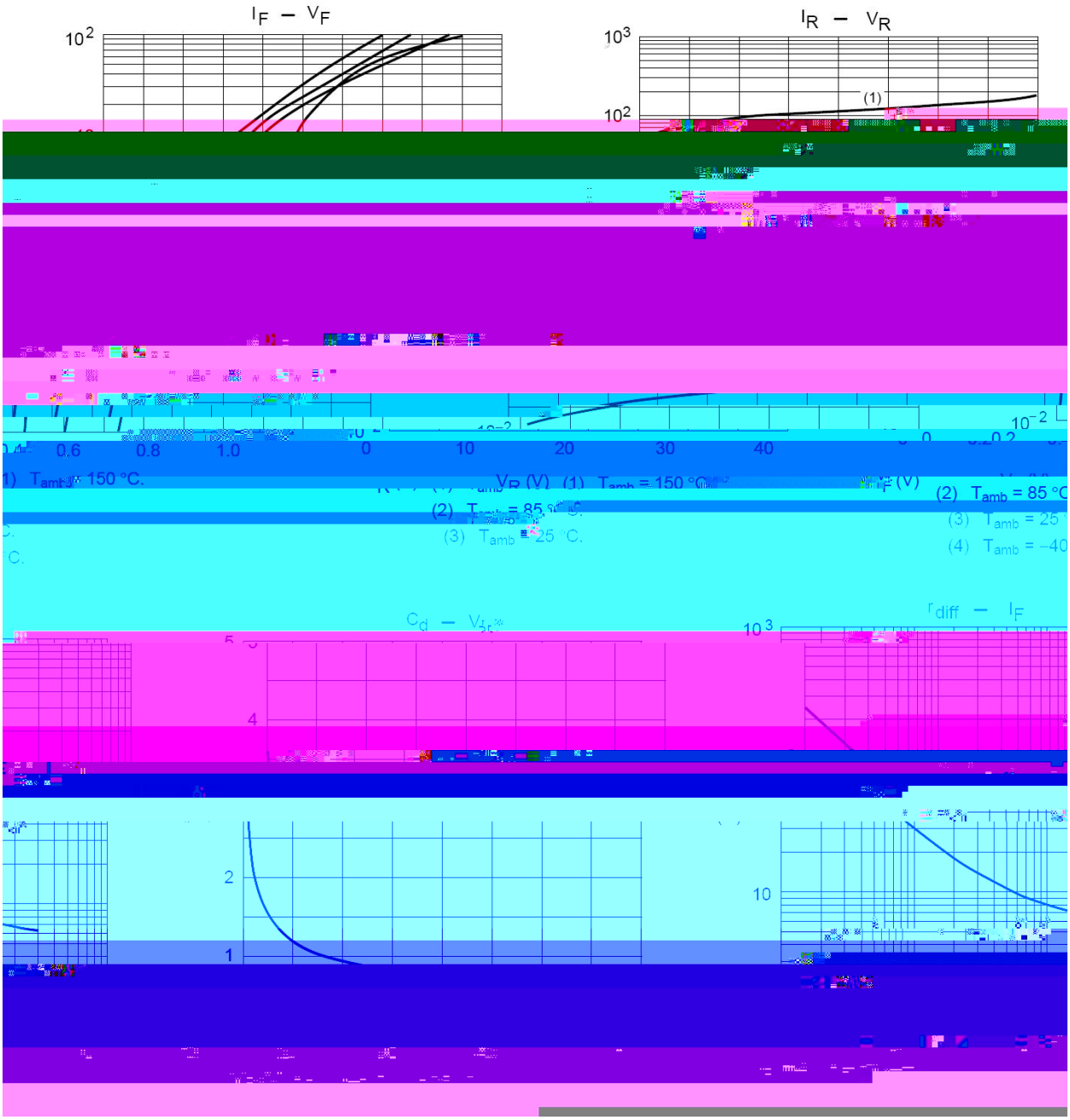
Ã a ? d / Absolute Maximum Ratings(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	ƒ › Rating	% y Unit
Repetitive Reverse Voltage	V_R	40	V
Average Rectified Forward Current	I_F	120	mA
Repetitive Peak Forward Surge Current	I_{FRM} Ät$_p$ ‰ 1s Å	120	mA
Non-repetitive Peak Forward Surge Current	I_{FSM} Ät$_p$<10ms Å	100	mA
Thermal Resistance From Junction to Ambient	R $_{JA}$	500	K/W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

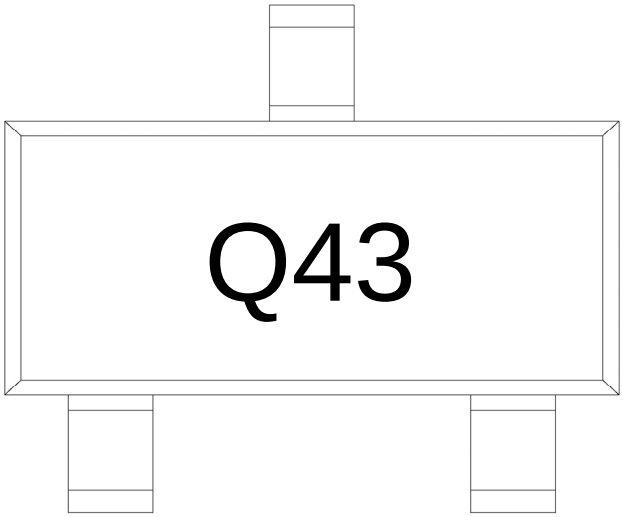
Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Forward Voltage	V_F	I_F=1mA			380	mV
		I_F=10mA			500	mV
		I_F=40mA			1.0	V
Instantaneous Reverse Current	I_R	V_R=30V			1.0	A
		V_R=40V			10	A
Diode Capacitance	C_d	V_R=0 f=1MHz			5	pF

Ô ? d • Ž ¢ / Electrical Characteristic Curve



, M y ƒ / Marking Instructions



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7 y V ñ —)í D } ö œ

y º Z W A

Note:

Q: Automobile halogen-free product Code

43: Product Type

š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½200 - k ž • 60 ½120sec;

2o• Q › “ † 255 r5 - k ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

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

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3.Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r5 - ž • y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H					Dimension ;>û p . (unit Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
SOT-23	3,000	10	30,000	6	180,000	s7×8	180×120×180	390×385×205