

/ Descriptions

Schottky barrier diodes in a SOT-23 Plastic Package.

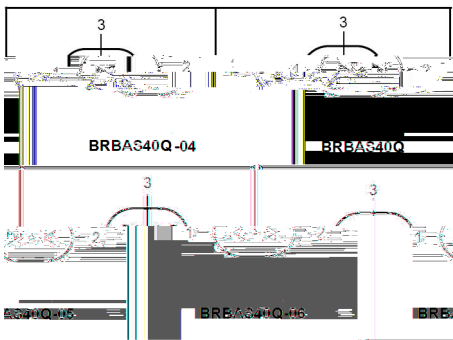
/ Features

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

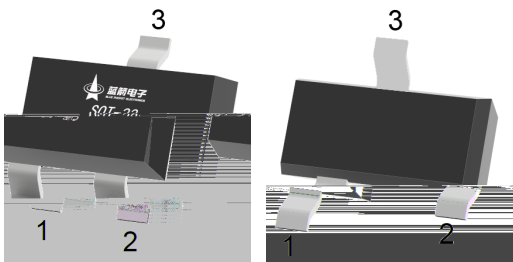
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN: See Equivalent Circuit.

/ Marking

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

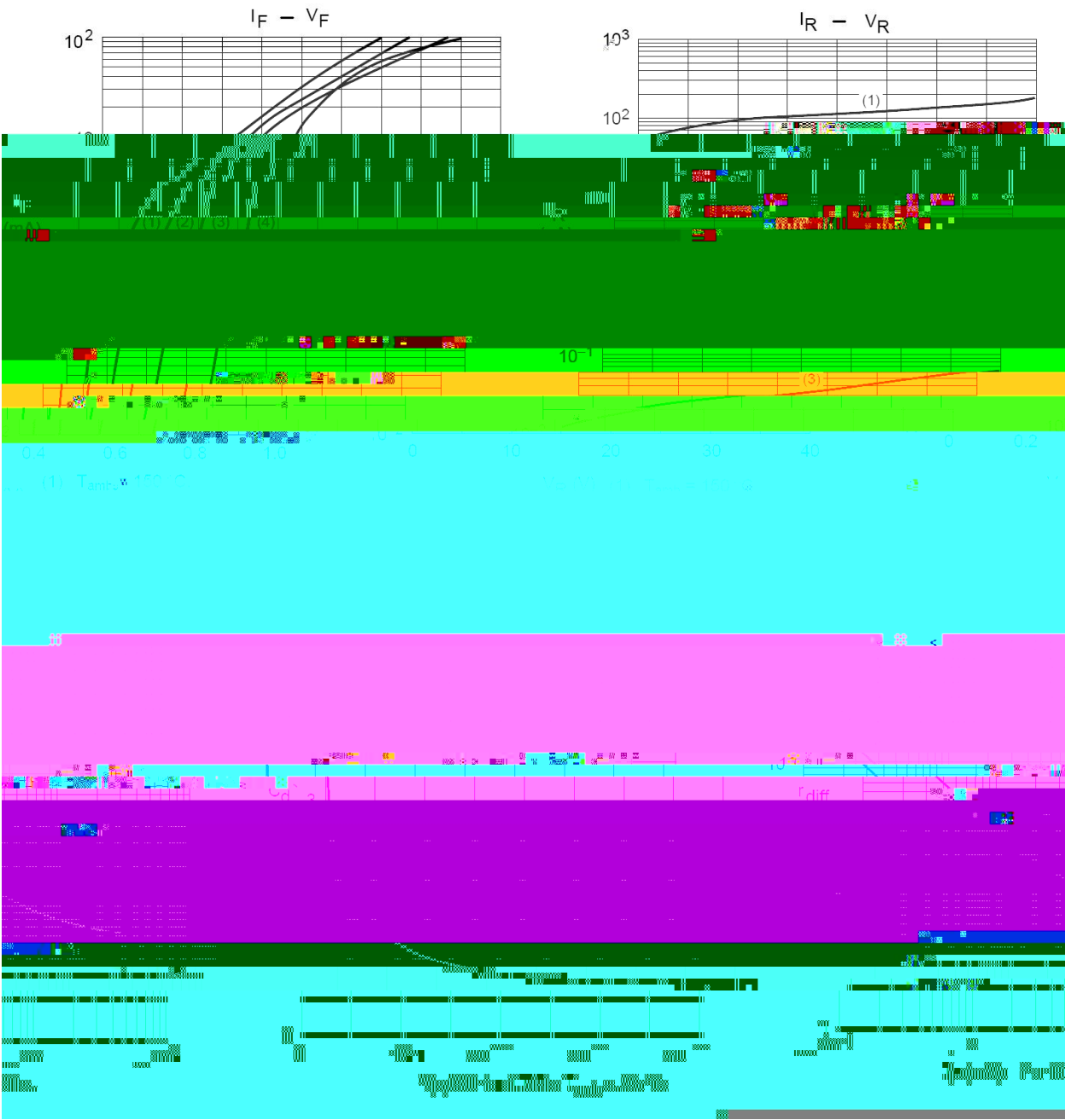
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Repetitive Reverse Voltage	V_R	40	V
Average Rectified Forward Current	I_F	120	mA
Repetitive Peak Forward Surge Current	$I_{FRM} \quad t_p \leq 1s$	120	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM} \quad t_p < 10ms$	100	mA
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	500	K/W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 ~ 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	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	μA
		$V_R=40V$			10	μA
Diode Capacitance	C_d	$V_R=0 \quad f=1MHz$			5	pF

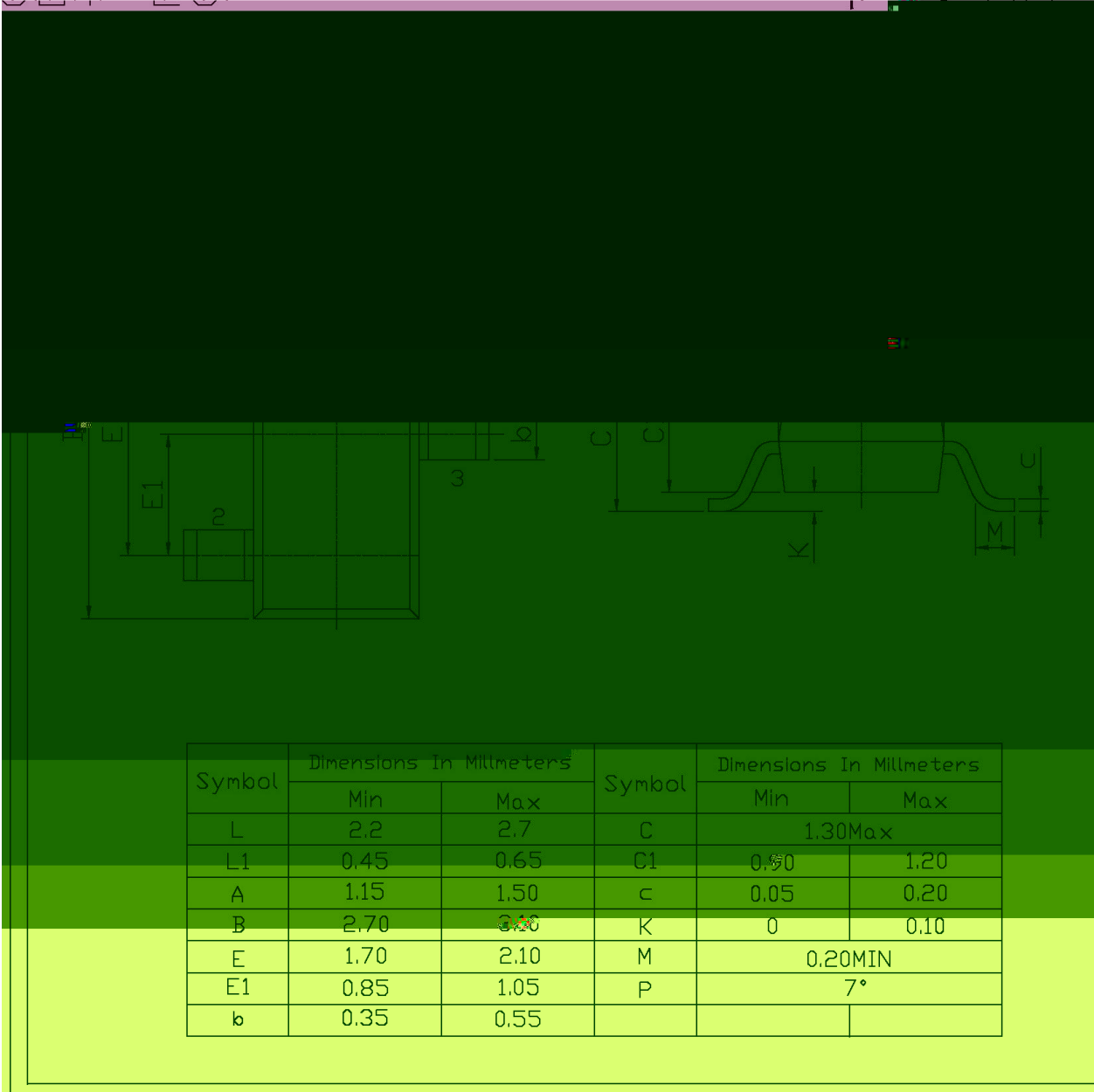
/ Electrical Characteristic Curve



/ Package Dimensions

SOT-23

单位



/ Marking Instructions



Note:

Q: Automobile halogen-free product Code

43: Product Type

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

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
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205