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BAT750

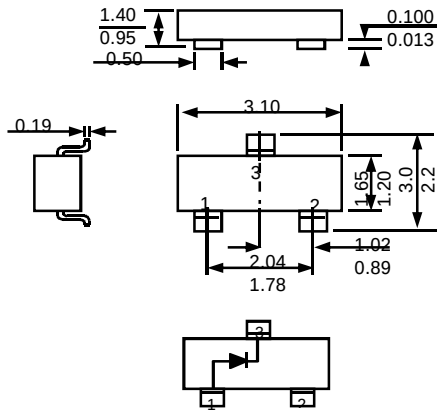
SURFACE MOUNT SCHOTTKY BARRIER DIODE

PRV : 40 Volts
Io : 750 mA

FEATURES :
* Very low forward voltage drop
* High Conductance
* Pb / RoHS Free

MECHANICAL DATA :
* Case : SOT-23 plastic Case
* Marking Code : K77

SOT-23



Dimensions in millimeters

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum DC Blocking Voltage	V_R	40	V
Maximum Rectified Average Forward Current	$I_{F(AV)}$	750	mA
Maximum Peak Forward Surge Current at t= 8.3 ms	I_{FSM}	5.5	A
Power Dissipation	P_{tot}	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	286	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Test Condition	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	I_R = 300 µA	$V_{(BR)R}$	40	-	V
Forward Voltage	I_F = 50 mA	V_F	-	280	mV
	I_F = 100 mA		-	310	
	I_F = 250 mA		-	350	
	I_F = 500 mA		-	420	
	I_F = 750 mA		-	490	
	I_F = 1 A		-	540	
	I_F = 1.5 A		-	650	
Reverse Current	V_R = 30 V	I_R	-	100	µA
Total Capacitance	V_R = 0 V, f = 1 MHz	C_T	-	5.0	pF

RATINGS AND CHARACTERISTIC CURVES (BAT750)

FIG.1 - FORWARD CURRENT DERATING CURVE

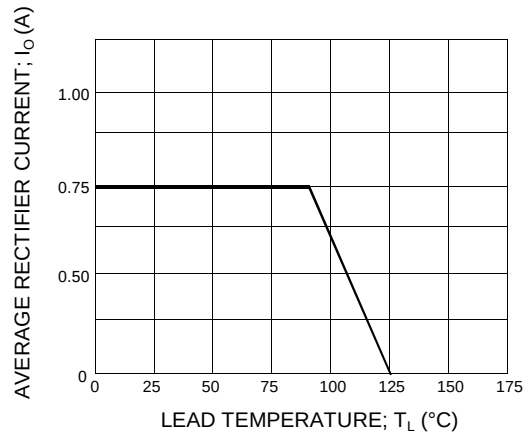


FIG.2 - TOTAL CAPACITANCE VS. REVERSE VOLTAGE

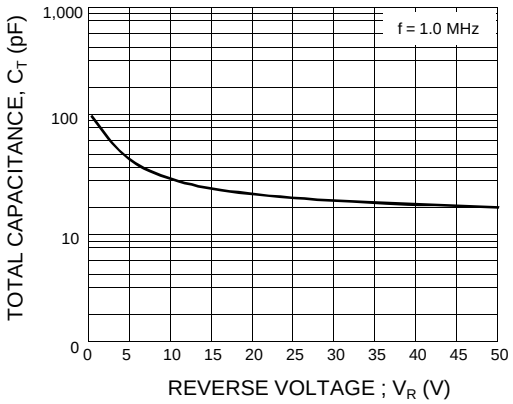


FIG.3 - FORWARD CHARACTERISTICS

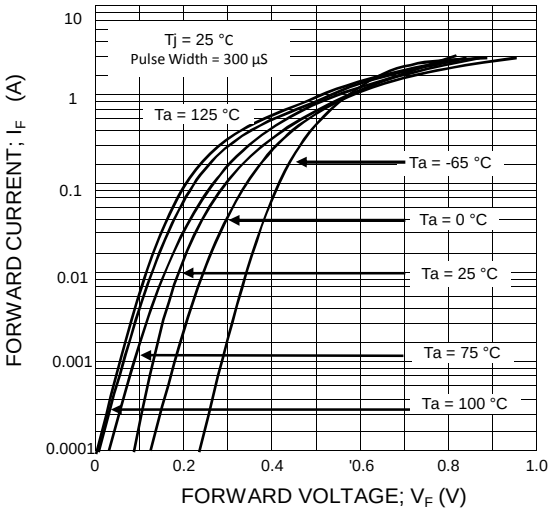


FIG.4 - REVERSE CHARACTERISTICS

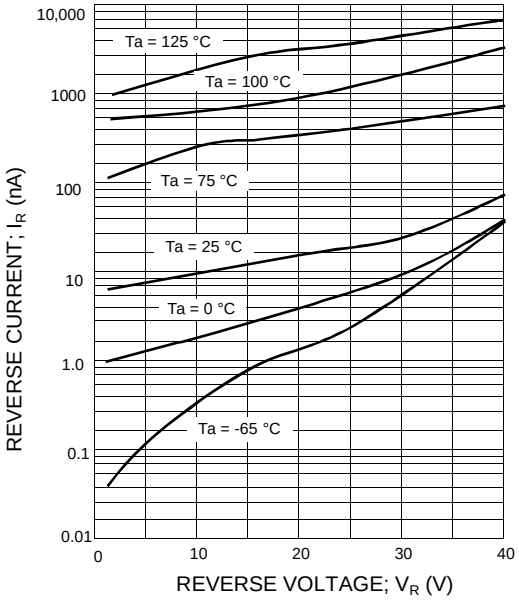


FIG.5 - TYPITAL SAFE OPERATING AREA