BAT45

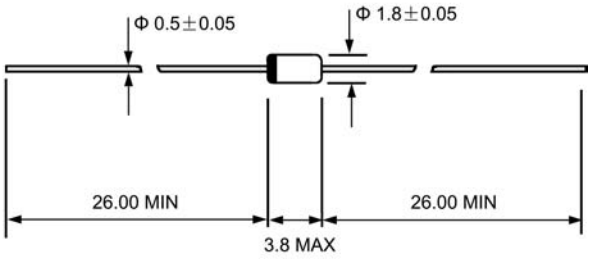
Small Signal Schottky Diodes

VOLTAGE RANGE: 15 V
CURRENT: 30 mA

DO - 35(GLASS)

Features

- ◇ For general purpose applications
- ◇ Metal silicon schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices,steering,biasing and coupling diodes for fast switching and low logic level applications



Dimensions in millimeters

Mechanical Data

- ◇ Case:JEDEC DO--35,glass case
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: Approx. 0.13 gram

ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	UNITS
Peak reverse voltage	V_{RRM}	15	V
Forward continuous current	I_F	30[1)]	mA
Surge non repetitive forward current tp≤1s	I_{FSM}	60	mA
Junction tenperature	T_J	-65 ---+ 150	℃
Storage temperature range	T_{STG}	-65 ---+ 150	℃
1)Valid provided that electrodes are kept at ambient temperature.			

ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified)

	Symbols	Min.	Typ.	Max.	UNITS
Reverse breakdown voltage @ I_R=10μA	V_R	15			V
Leakage current @ V_R=6V	I_R			100	nA
Forw ard voltage drop @ I_F=1.0mA Test pulse:tp≤300μs,δ<2% I_F=10mA I_F=30mA	V_F			0.38 0.5 1.0	V
Junction capacitance @ V_R=1.0V,f=1MHz	C_J			1.1	pF
Termal resistance junction to ambient air	$R_{\theta JA}$			400	K/W

Ratings AND Charactieristic Curves

FIG.1 – FORWARD CURRENT VERSUS FORWARD VOLTAGE AT DIFFERENT TEMPERATURES (TYPICAL VALUES)

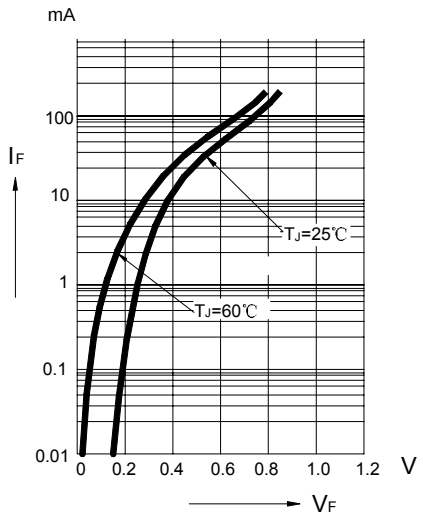
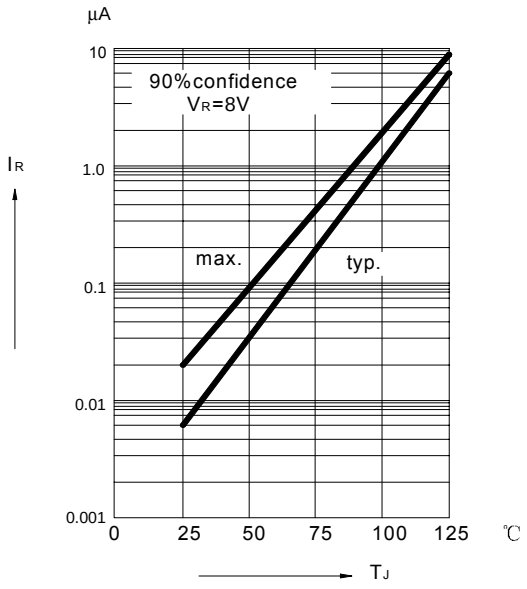


FIG.2 – REVERSE CURRENT VERSUS JUNCTION TEMPERATURE



Ratings AND Charactieristic Curves

FIG.3 – REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

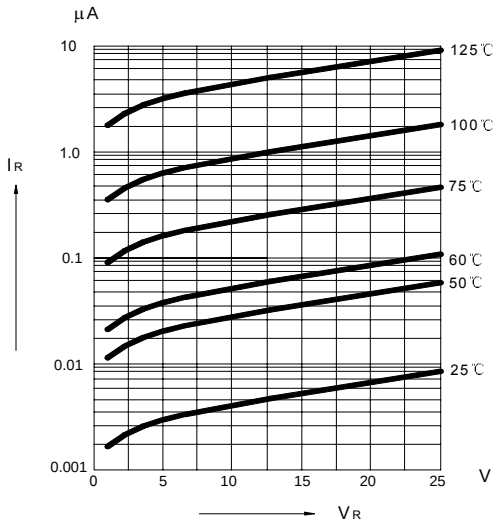


FIG.4 – FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)