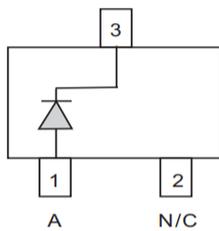


FEATURES

- Low V_F
- High current capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)



MECHANICAL DATA

- Case : SOT-23, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0003 ounces, 0.0084 grams

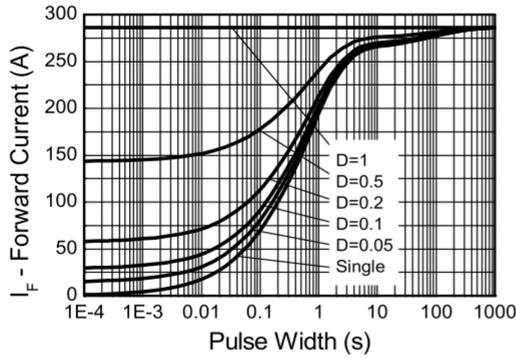
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Limit	Unit
Collector reverse voltage	V_R	40	V
RMS reverse voltage	$V_{R(RMS)}$	28	V
Forward current (continuous)	I_F	750	mA
Forward voltage@ $I_F=750mA$	V_F	500	mV
Average peak forward current; DC=50%	I_{FAV}	1500	mA
Non repetitive forward current $t \leq 100\mu s$ $t \leq 8.3ms$	I_{FSM}	12 5.5	A
Power dissipation@ $T_A=25^\circ C$	P_{TOT}	350	mW
Typical thermal resistance, junction to ambient air	$R_{\theta JA}$	286	$^\circ C/W$
Storage temperature range	T_{STG}	-55 to + 150	$^\circ C$
Junction temperature	T_J	125	$^\circ C$

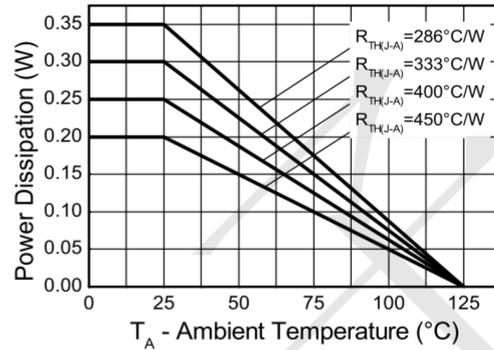
ELECTRICAL CHARACTERISTICS (@T=25°C unless otherwise stated)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=300\mu A$	40		-	V
Forward voltage(Note 1)	V_F	$I_F=50mA$ $I_F=100mA$ $I_F=250mA$ $I_F=500mA$ $I_F=750mA$	-		280 310 350 420 500	mV
Reverse current	I_R	$V_R=30V$	-	50	100	μA
Off state junction capacitance	C_J	$V_R=25V, f=1.0MHz$	-	18	-	pF

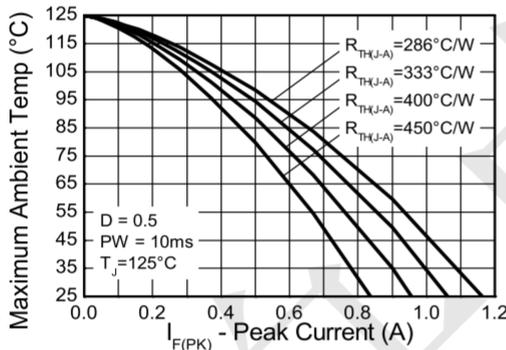
Note : 1.Measured under pulsed conditions. Pulse width = 300 μ duty cycle < 2%



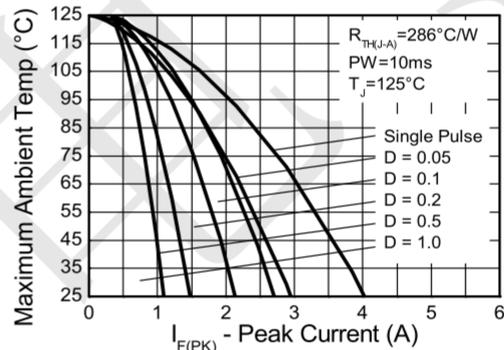
Transient Thermal Impedance



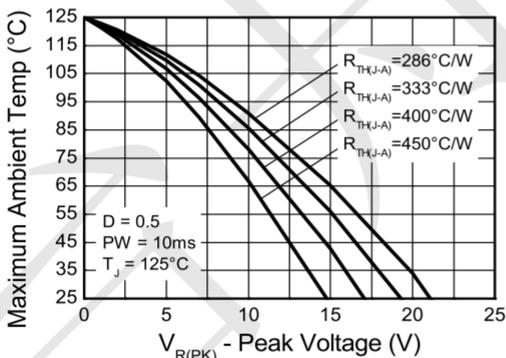
Derating Curves



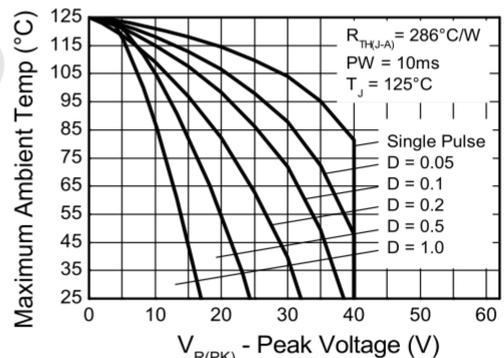
Forward Safe Operating Area



Forward Safe Operating Area



Reverse Safe Operating Area



Reverse Safe Operating Area

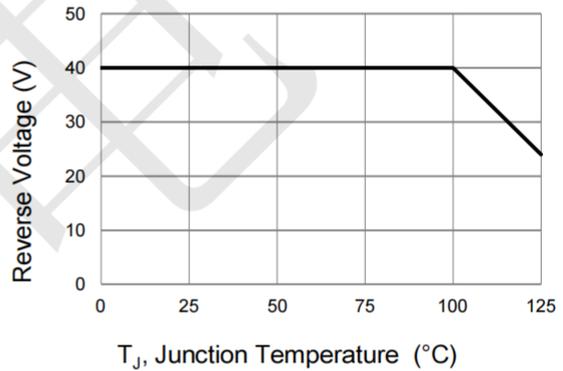
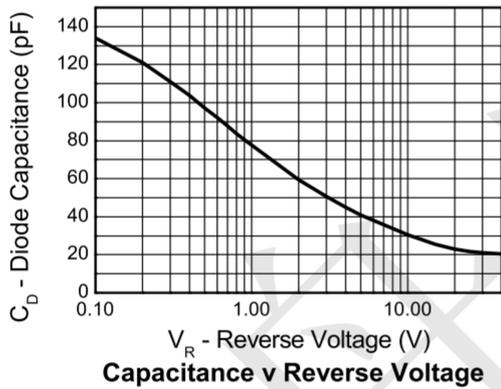
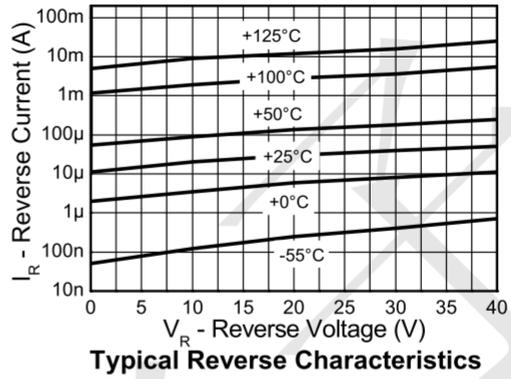
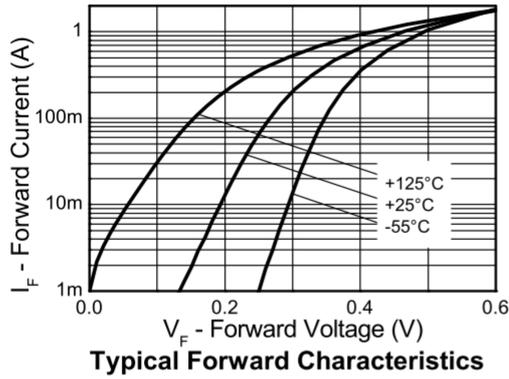
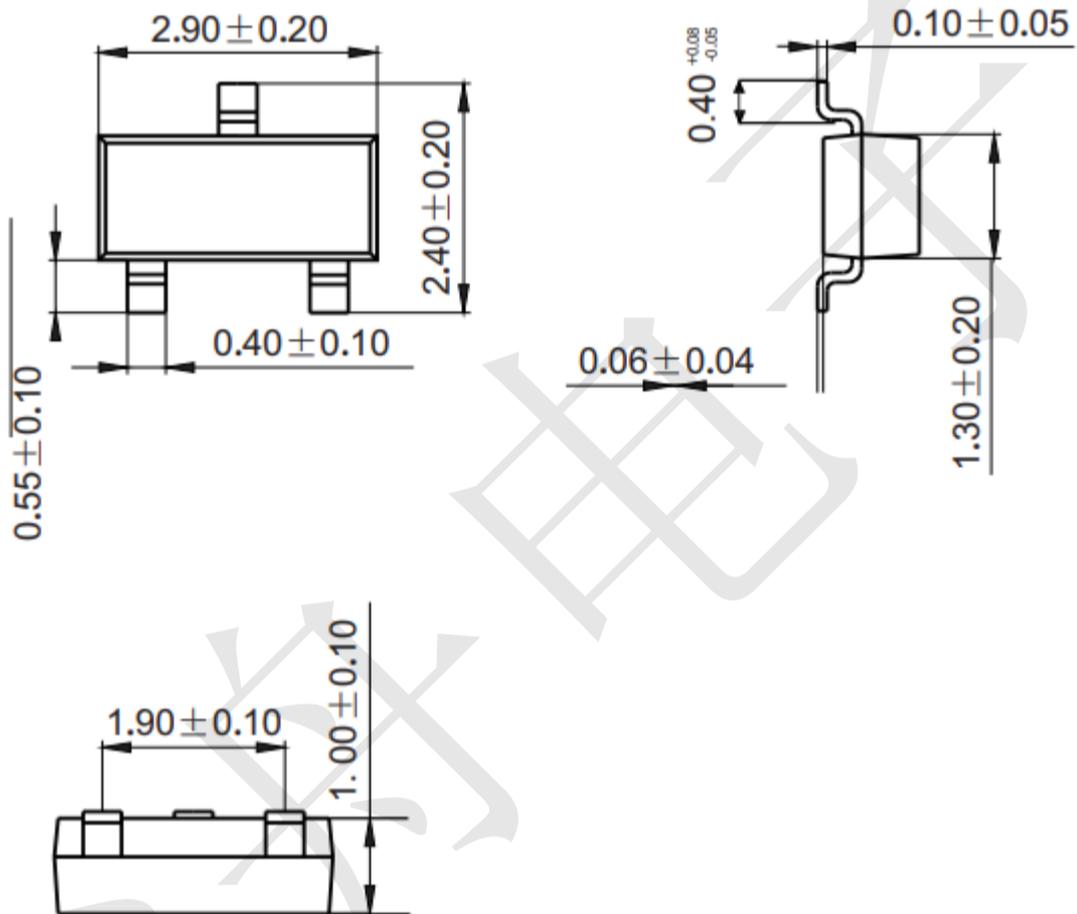


Fig.10 Operating Temperature Derating Curve

Package information (Unit: mm)

SOT-23



Mounting Pad Layout (Unit: mm)

