

Maximum Ratings

Parameter	Symbol	Test Condition	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		650	V
Surge Peak Reverse Voltage	V_{RSM}		650	V
DC Blocking Voltage	V_{DC}		650	V
Continuous Forward Current	I_F	$T_C=25^{\circ}C$ $T_C=100^{\circ}C$ $T_C=160^{\circ}C$	9 6 2	A
Repetitive Peak Forward Surge Current	I_{FRM}	$T_C=25^{\circ}C$, $t_p=10ms$, Half Sine Wave, $D=0.3$	15	A
Non-repetitive Peak Forward Surge Current	I_{FSM}	$T_C=25^{\circ}C$, $t_p=10ms$, Half Sine Wave	30	A
Power Dissipation	P_{TOT}	$T_C=25^{\circ}C$	42	W
		$T_C=110^{\circ}C$	18	W
Operating Junction	T_j		-55 $^{\circ}C$ to 175 $^{\circ}C$	$^{\circ}C$
Storage Temperature	T_{stg}		-55 $^{\circ}C$ to 175 $^{\circ}C$	$^{\circ}C$
Mounting Torque		M3 Screw	1	Nm
		6-32 Screw	8.8	lbf-in

Thermal Characteristics

Parameter	Symbol	Test Condition	Value	Unit
			Typ.	
Thermal resistance from junction to case	R_{thJC}		3.57	$^{\circ}C/W$

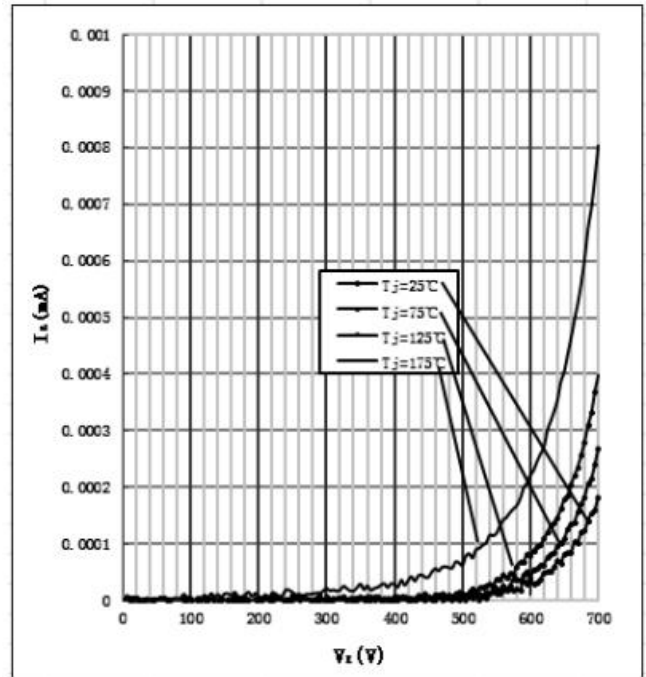
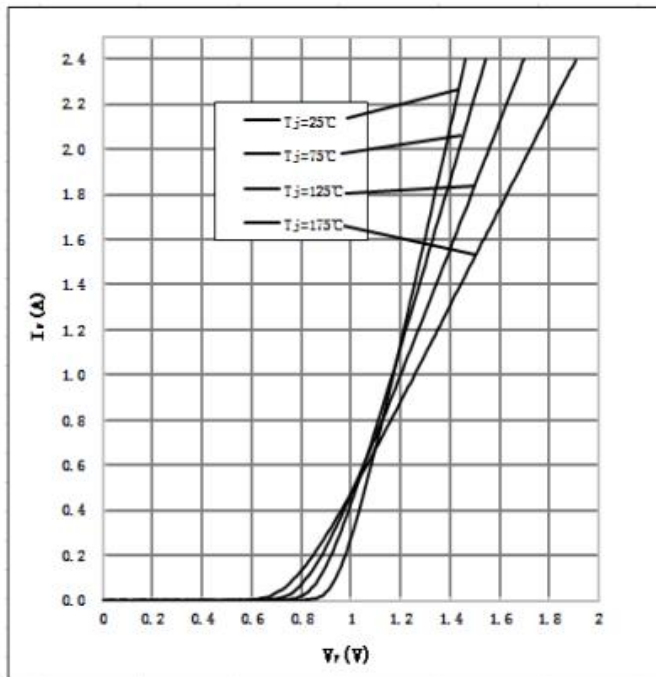
Electrical Characteristics

Parameter	Symbol	Test Conditions	Numerical		Unit
			Typ.	Max.	
Forward Voltage	V_F	$I_F=2A, T_j=25^\circ C$	1.38	1.7	V
		$I_F=2A, T_j=175^\circ C$	1.72	2.5	
Reverse Current	I_R	$V_R=650V, T_j=25^\circ C$	10	50	μA
		$V_R=650V, T_j=175^\circ C$	20	100	
Total Capacitive Charge	Q_C	$V_R=400V, T_j=150^\circ C$ $Q_C = \int_0^{V_R} C(V)dV$	8	-	nC
Total Capacitance	C	$V_R=0V, T_j=25^\circ C, f=1MHZ$	123	150	pF
		$V_R=200V, T_j=25^\circ C, f=1MHZ$	12	20	
		$V_R=400V, T_j=25^\circ C, f=1MHZ$	13	30	

Performance Graphs

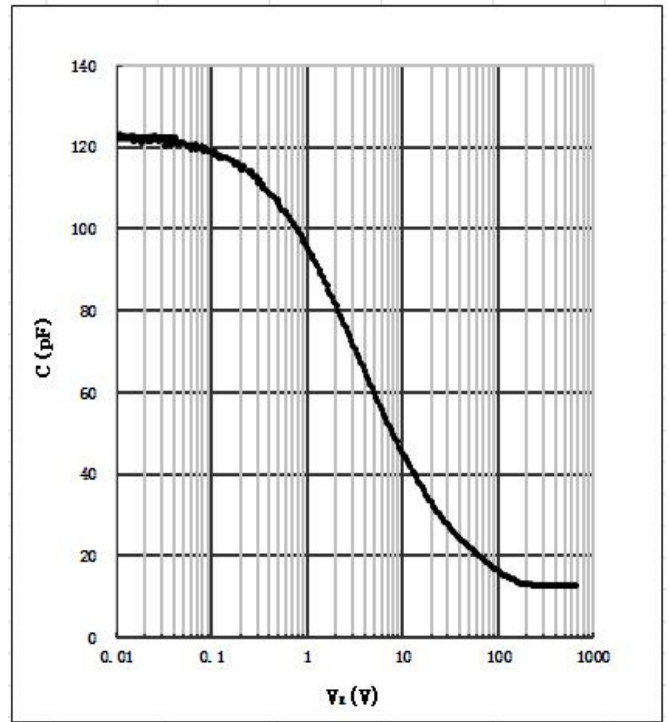
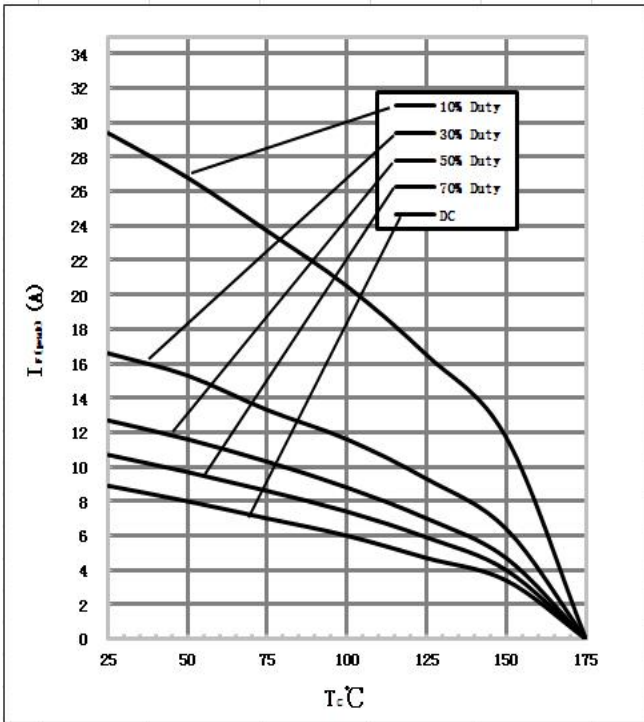
1) Forward IV characteristics as a function of T_j :

2) Reverse IV characteristics as a function of T_j :

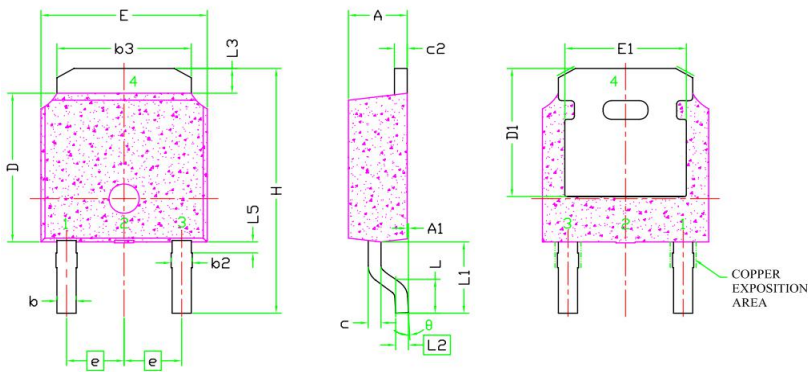


3)Current Derating

4)Capacitance vs. reverse voltage :



Package TO-252-2



SYMBOL	DIMENSIONAL REQMTS		
	MIN	NOM	MAX
E	6.40	6.60	6.731
L	1.40	1.52	1.77
L1	2.743 REF		
L2	0.508 BSC		
L3	0.89	--	1.27
L5	--	--	--
D	6.00	6.10	6.223
H	9.40	10.00	10.40
b	0.64	0.76	0.88
b2	0.77	0.84	1.14
b3	5.21	5.34	5.46
e	2.286 BSC		
A	2.20	2.30	2.38
A1	0	--	0.127
c	0.46	0.50	0.60
c2	0.46	0.50	0.58
D1	5.21	--	--
E1	4.40	--	--
θ	0°	--	10°

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