

Maximum Ratings – Q1 (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-80	V
Collector-Emitter Voltage	V _{CEO}	-80	V
Emitter-Base Voltage	V _{EBO}	-4.0	V
Continuous Collector Current	I _{C(MAX)}	-500	mA
Peak Pulse Collector Current @ DC Increment for I _C ; I _B = 300mA; test duration >10s for each step.	I _{CM}	-1.0	A
Base Current	I _B	-200	mA

Maximum Ratings – D1, D2 (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	75	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current (Note 5)	I _{FM}	300	mA
Average Rectified Output Current (Note 5)	I _O	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs	I _{FSM}	20	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P _D	600	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	R _{θJA}	208	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

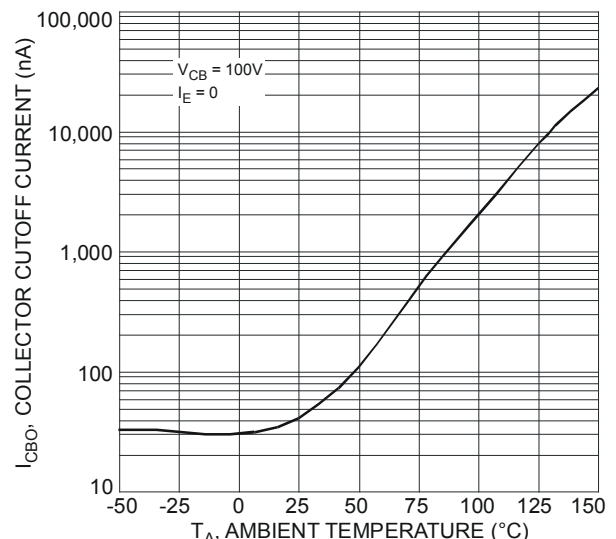
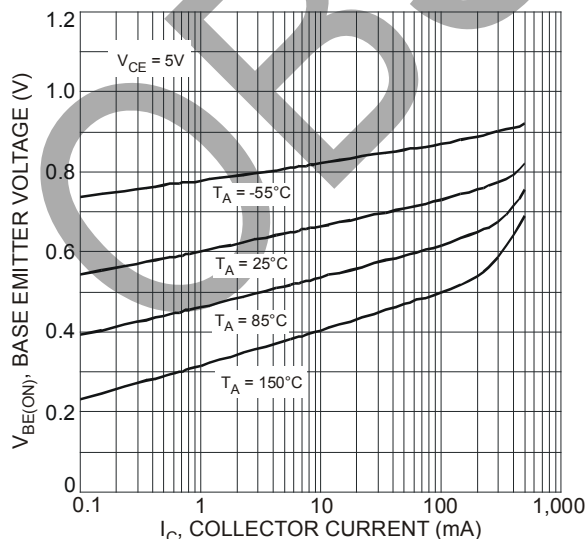
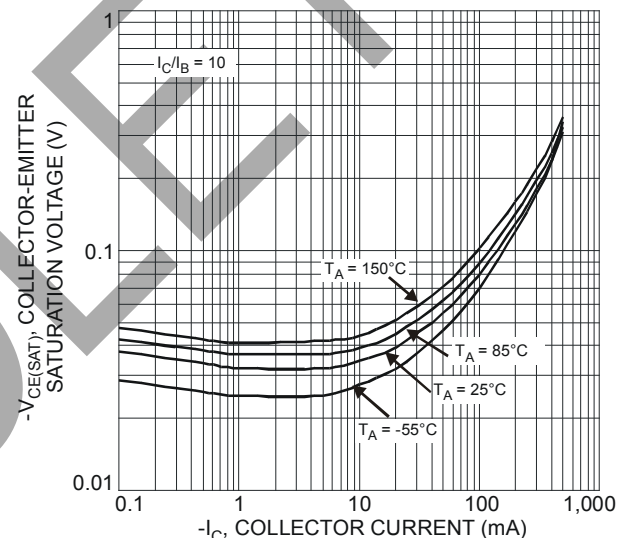
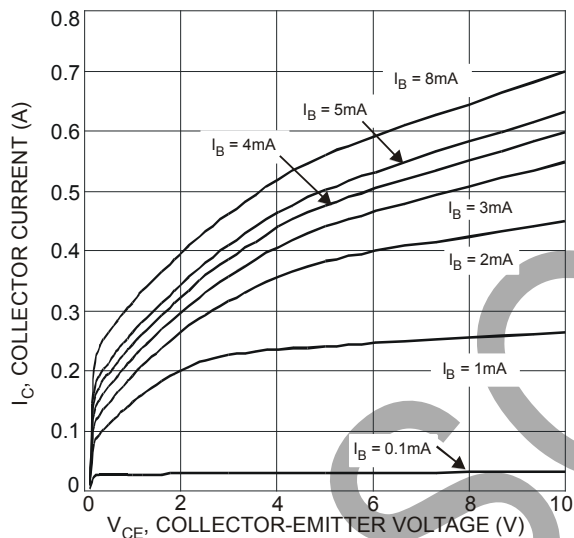
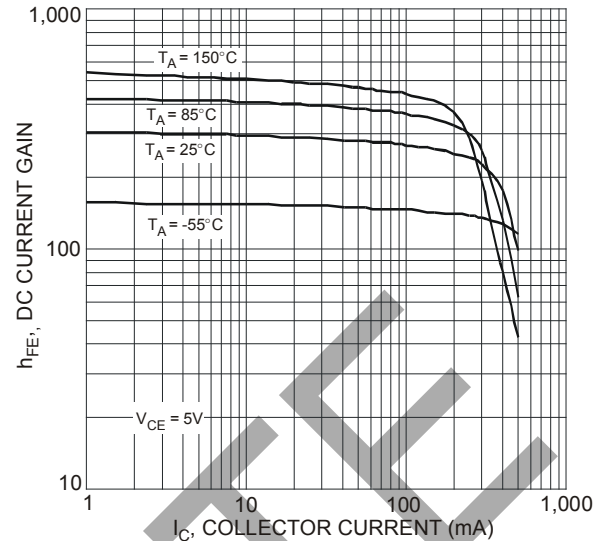
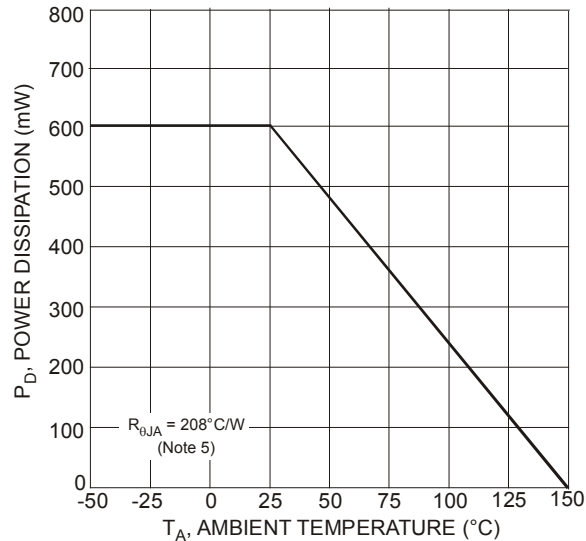
Electrical Characteristics – Q1 (@T_A = +25°C, unless otherwise specified.)

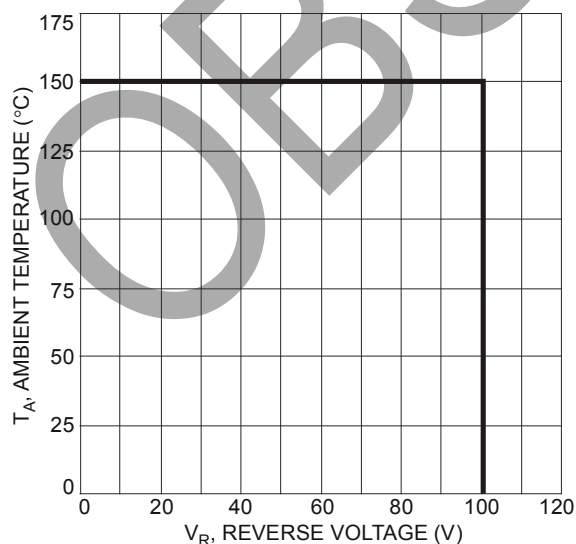
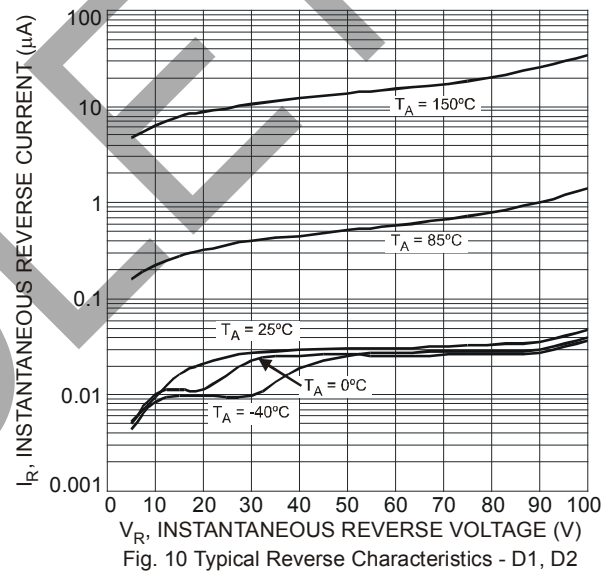
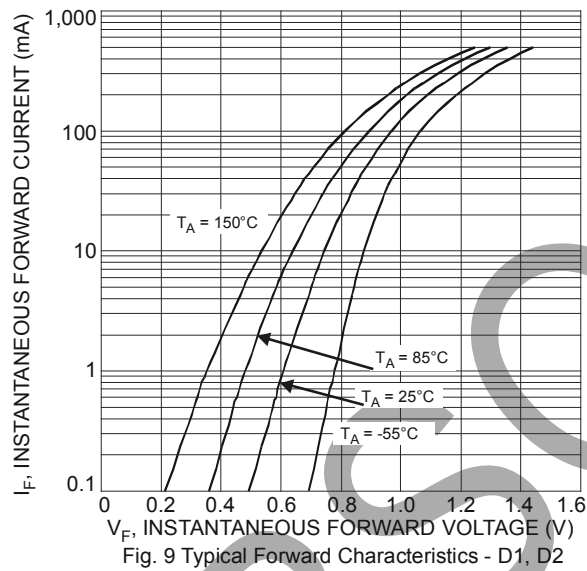
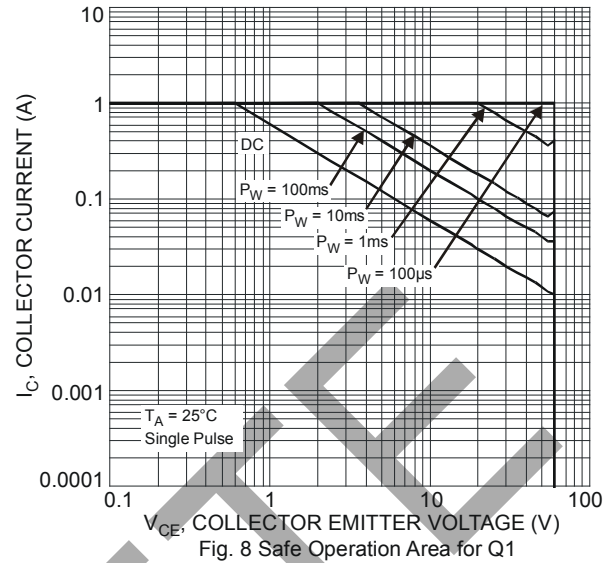
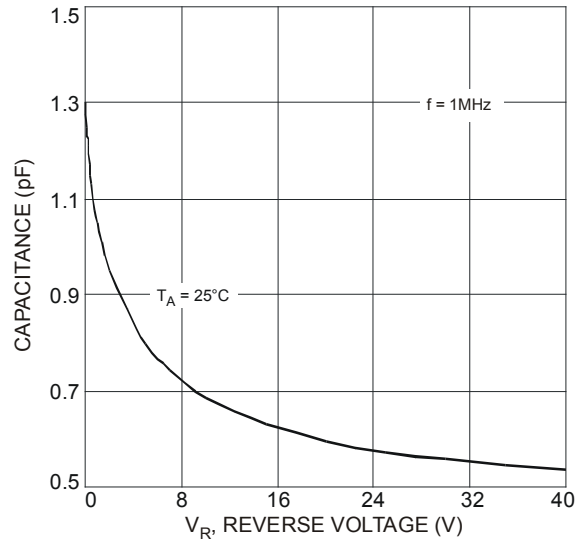
Characteristic (Note 6)	Symbol	Min	Typ	Max	Unit	Test Condition
Collector-Base Breakdown Voltage	BV _{CBO}	-80	—	—	V	I _C = -100μA, I _E = 0
Collector-Emitter Breakdown Voltage	BV _{CEO}	-80	—	—	V	I _C = -1.0mA, I _B = 0
Emitter-Base Breakdown Voltage	BV _{EBO}	-4	—	—	V	I _E = -100μA, I _C = 0
Collector Cutoff Current	I _{CBO}	—	—	-100	nA	V _{CB} = -60V, I _E = 0
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	—	—	-0.25	V	I _C = -100mA, I _B = -10mA
DC Current Transfer Ratio	h _{FE}	120	280	500	—	I _C = -10mA, V _{CE} = -1.0V

Electrical Characteristics – D1, D2 (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V _{(BR)R}	75	—	V	I _R = 100μA
Forward Voltage	V _F	—	0.715	V	I _F = 5.0mA
		—	0.855		I _F = 10mA
		—	1.0		I _F = 50mA
		—	1.25		I _F = 150mA
		—	—		I _F = 10mA
Leakage Current (Note 6)	I _R	—	0.1	μA	V _R = 75V
		—	25	nA	V _R = 20V
Total Capacitance	C _T	—	1.5	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	4	ns	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

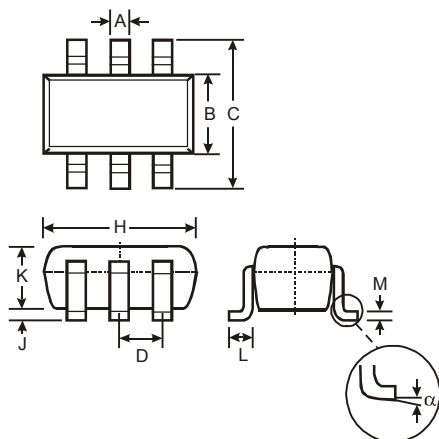
Notes: 5. Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com>.
 6. Short duration pulse test used to minimize self-heating effect.





Package Outline Dimensions

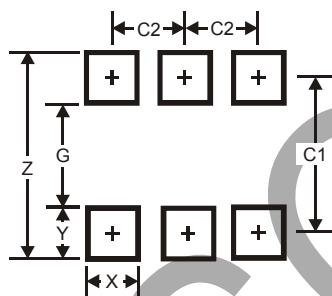
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for the latest version.



SOT26			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	—	—	0.95
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
α	0°	8°	—
All Dimensions in mm			

Suggested Pad Layout

Please see AP02001 at <http://www.diodes.com/datasheets/ap02001.pdf> for the latest version.



Dimensions	Value (in mm)
Z	3.20
G	1.60
X	0.55
Y	0.80
C1	2.40
C2	0.95

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