

APPROVAL SHEET

Customer : _____

Customer Part Number : BAW56TB_SERIES

PanJit Part Number : BAW56TB_SERIES

Issue Date : 11/4/2022

APPROVED BY : Hubert Chiang

PREPARED BY : Ivy Deng



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BAW56TB,BAV70TB,BAV99TB,BAL99TB

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100Volt **POWER** 200mWatt

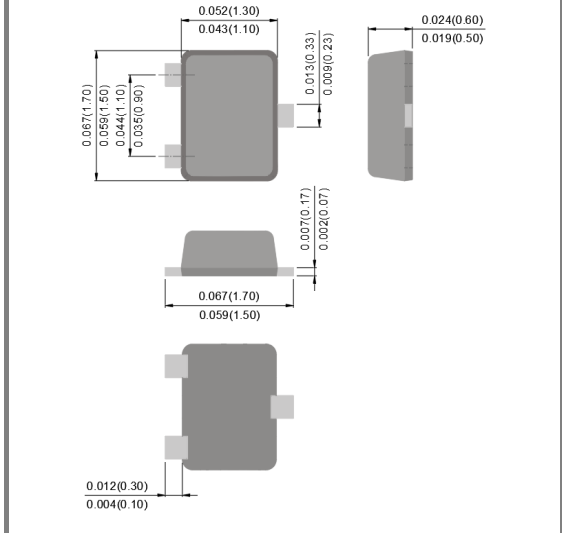
SOT-523 Dimension **Unit: inch(mm)**

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOT-523, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.002 grams



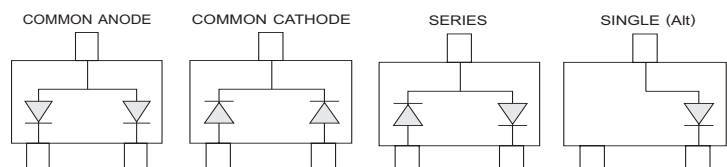
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAW56TB	BAV70TB	BAV99TB	BAL99TB	UNITS
Marking Code		LB	LC	LD	LF	
Reverse Voltage	V _R	75				V
Peak Reverse Voltage	V _{RM}	100				V
Rectified Current (Average), Half Wave Rectification with Resistive Load and f >=50 Hz	I _O	150 75				mA
Peak Forward Surge Current,1.0us	I _{FSM}	4.0				A
Power Dissipation Derate Above 25°C	P _{TOT}	200				mW
Maximum Forward Voltage	V _F	0.715 @ I _F =0.001A 0.855 @ I _F =0.01A 1.0 @ I _F =0.05A 1.25 @ I _F =0.15A				V
Maximum DC Reverse Current at 25V 75V	I _R	0.03 2.5				μA
Maximum Junction Capacitance(Notes 1)	C _J	1.5				pF
Maximum Reverse Recovery Time (Notes 2)	T _{RR}	4.0				ns
Typical Maximum Thermal Resistance	R _{θJA}	833				°C / W
Junction Temperature Range	T _J	-55 to +150				°C
Circuit Figure		Common Anode	Common Cathode	Series	Single(Alt)	

NOTE:

1. C_J at V_R=0, f=1MHZ
2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω





BAW56TB,BAV70TB,BAV99TB,BAL99TB

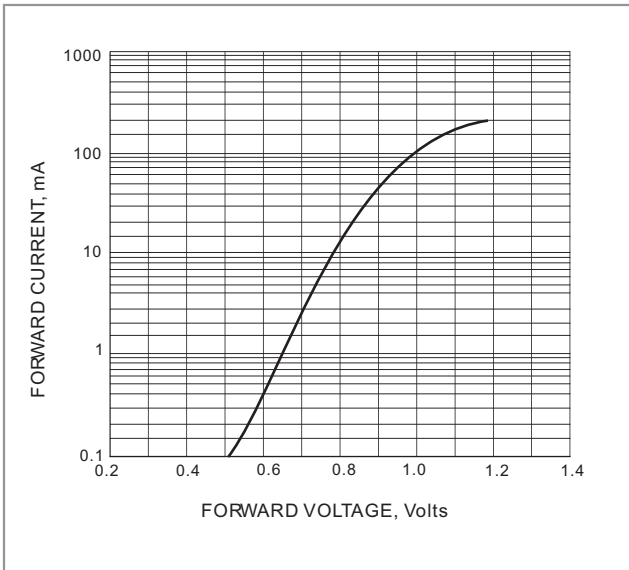


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

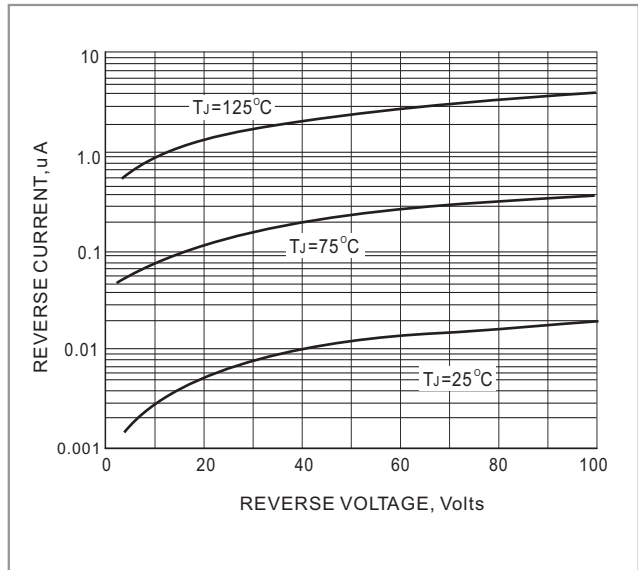


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

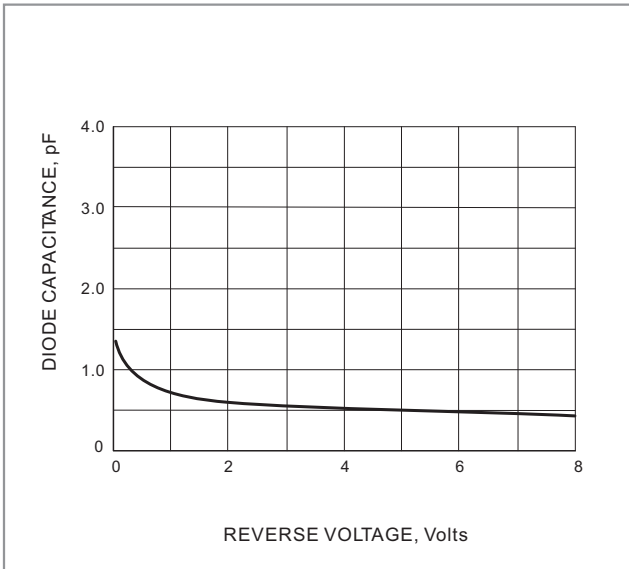


FIG. 3 TYPICAL JUNCTION CAPACITANCE

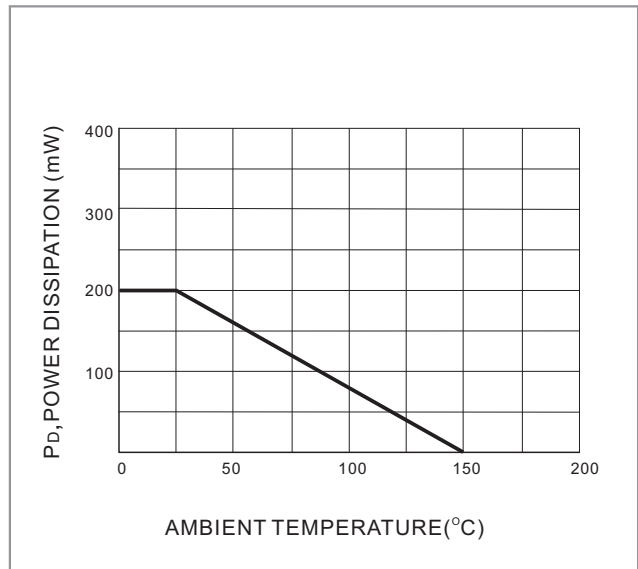
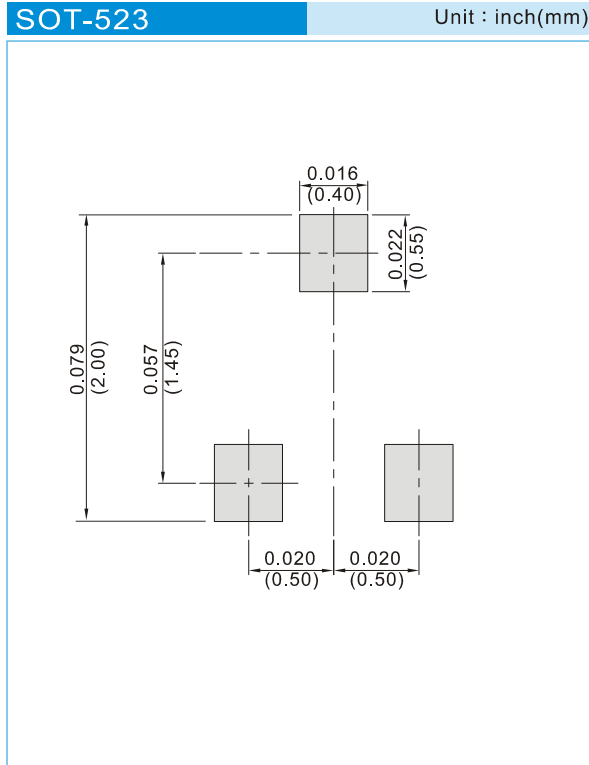


FIG. 4 POWER DERATING CURVE



BAW56TB,BAV70TB,BAV99TB,BAL99TB

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 4K per 7" plastic Reel



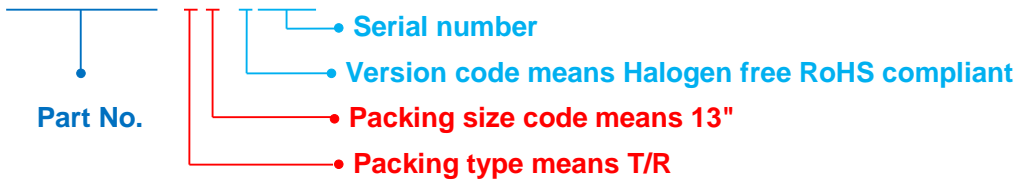
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Part No._packing code_Version

BAW56TB_R1_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code X		Serial number XXXX
Packing type	1 st Code	Packing size code	2 nd Code	HSF Level	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	Halogen free RoHS compliant	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS compliant	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



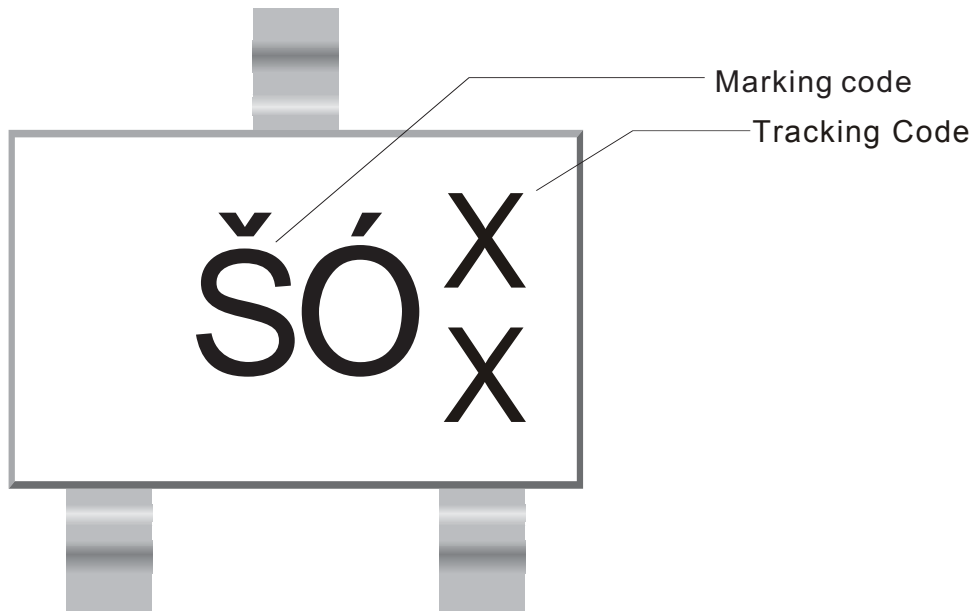
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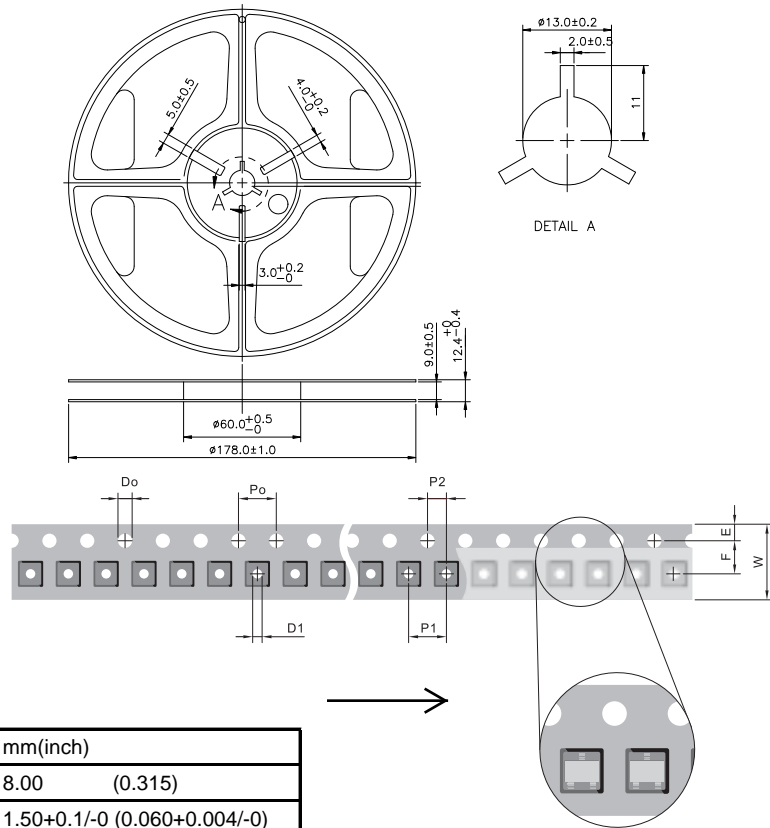


2. MARKING

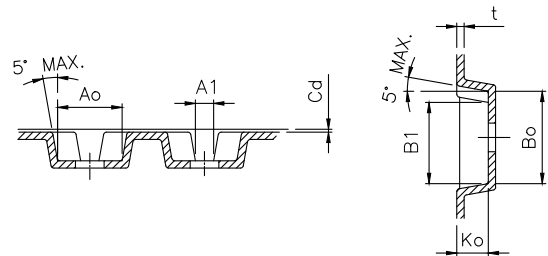




3. TAPING



SYMBOL	mm(inch)
TYPE SIZE	8.00 (0.315)
Do	1.50±0.1/-0 (0.060±0.004/-0)
D1	1±0.25/-0 (0.04±0.01/-0)
E	1.75 ± 0.10 (0.069 ± 0.004)
F	3.50 ± 0.05 (0.137 ± 0.002)
Po	4.00 ± 0.10 (0.157 ± 0.004)
P1	4.00 ± 0.10 (0.157 ± 0.004)
P2	2.00 ± 0.05 (0.079 ± 0.002)
W	8±0.3/-0.1 (0.315±0.01/-0.004)
Ao	1.78 ± 0.05 (0.070 ± 0.002)
Ao	1.78 ± 0.10 (0.070 ± 0.004)
Bo	1.98 ± 0.05 (0.078 ± 0.002)
Bo	1.98 ± 0.10 (0.078 ± 0.004)
t	0.20 ± 0.02 (0.008 ± 0.001)
t	0.20 ± 0.05 (0.008 ± 0.002)
A1	0.61 (0.024)
A1	0.61 ± 0.10 (0.024 ± 0.004)
B1	1.63 (0.064)
B1	1.63 ± 0.10 (0.064 ± 0.004)
Cd	0.15 MAX. (0.006) MAX.
Ko	0.70 ± 0.05 (0.028 ± 0.002)
Ko	0.70 ± 0.10 (0.028 ± 0.004)



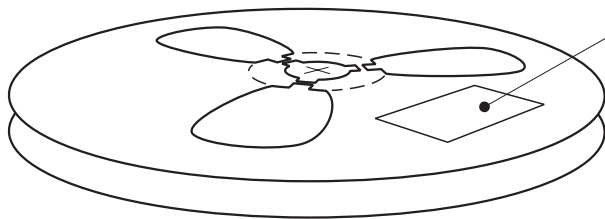
Note:

1. There shall be a leader of 400 mm minimum of cover tape and carrier tape with empty compartments.
2. There shall be a trailer of 160 mm minimum of cover tape and carrier tape with empty compartments.
3. Devices are packed in accordance with EIA standard EIA-481 and specifications given above.



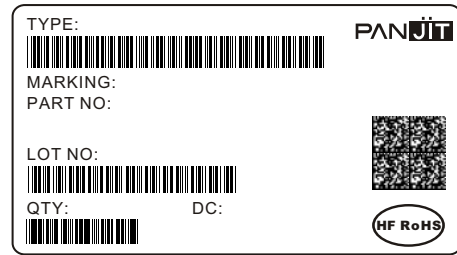
4. PACKING

REEL PACKING

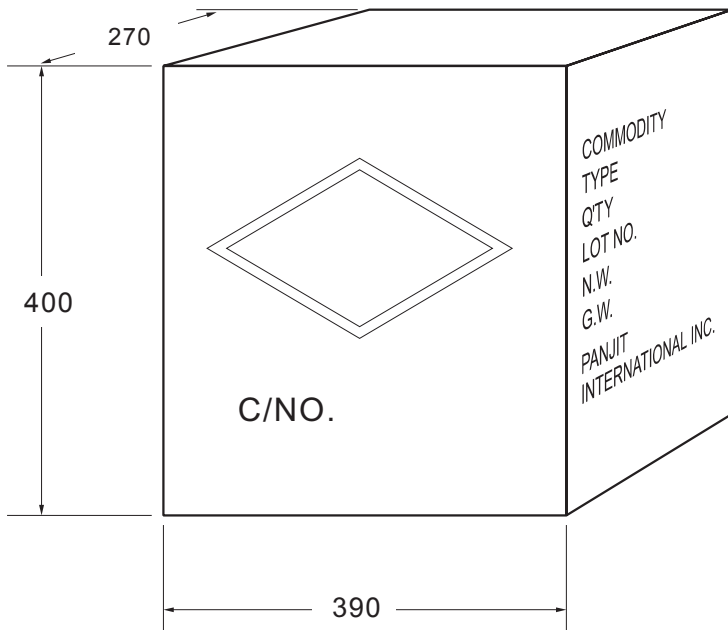


Quantity per Reel: 4,000 pcs

LABEL TYPE

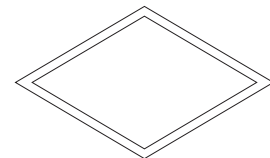


CARTON



Box Dimensions : mm
Quantity per Box: 320,000pcs

SHIPPING MARK



C/NO.
PRODUCT COUNTRY

SIDE MARK

COMMODITY:
TYPE:
Q'TY:
LOT NO.
N.W.
G.W.
PANJIT
INTERNATIONAL INC.



Packing Specifications

Package	Reel Size	Reel	Carton	Carton Size	Approx. Gross Weight
	(inch)	(pcs)	(EA)	(mm)	(kg)
Reel Packing					
DFN0603	7	10,000	800,000	390 x 270 x 400	9.0
DFN0603-2L	7	10,000	800,000	390 x 270 x 400	9.0
DFN 2L	7	8,000	640,000	390 x 270 x 400	8.6
DFN 3L	7	8,000	640,000	390 x 270 x 400	8.6
DFN1006-2L	7	10,000	800,000	390 x 270 x 400	5.0
DFN1006-3L	7	10,000	800,000	390 x 270 x 400	5.0
DFN1010-6L(ESD)	7	5,000	400,000	455 x 270 x 440	8.84
DFN1010B-6L(ESD)	7	5,000	400,000	455 x 270 x 440	8.84
DFN1608-2L	7	3,000	240,000	390 x 270 x 400	9.7
DFN1610-2L	7	3,000	240,000	390 x 270 x 400	9.7
DFN2020-6L(ESD)	7	3,000	240,000	455 x 270 x 440	12.3
DFN2020B-6L(ESD)	7	3,000	240,000	455 x 270 x 440	12.3
DFN2020-8L(ESD)	7	3,000	240,000	455 x 270 x 440	11.2
DFN2510-10L	7	5,000	400,000	390 x 270 x 400	10.5
	13	12,000	144,000	375 x 360 x 213	6.4
DFN2510A-10L(ESD)	7	3,000	240,000	455 x 270 x 440	10.95
DFN3030B-8L(ESD)	7	3,000	240,000	455 x 270 x 440	10.5
DFN3333-8L	13	5,000	80,000	375 x 360 x 422	10.5
DFN3333B-8L	13	5,000	80,000	375 x 360 x 422	10.5
DFN3810-9L(ESD)	7	3,000	120,000	390 x 240 x 420	4.4
DFN5060-8L(ESD)	13	3,000	48,000	375 x 360 x 422	14.19
DFN5060B-8L(ESD)	13	3,000	48,000	375 x 360 x 422	14.19
DFN5060X-8L(ESD)	13	3,000	48,000	375 x 360 x 422	14.19
DFN5515-14L	7	3,000	240,000	390 x 270 x 400	12.9
SOP-8	13	2,500	40,000	375 x 360 x 422	7.4
SOD-923	7	8,000	640,000	390 x 270 x 400	7.7
SOD-523	7	5,000	400,000	390 x 270 x 400	9.1
	13	12,000	144,000	375 x 360 x 230	5.4
SOD-323HE	7	5,000	400,000	390 x 270 x 400	11.9
	13	12,000	144,000	375 x 360 x 230	8.3
SOD-323	7	5,000	400,000	390 x 270 x 400	9.4
	13	12,000	144,000	375 x 360 x 230	5.9
SOD-123HE	7	3,000	240,000	390 x 270 x 400	12.4
	13	10,000	120,000	375 x 360 x 230	8.1
SOD-123FL	7	3,000	240,000	390 x 270 x 400	10.6
	13	10,000	120,000	375 x 360 x 230	7.2
SOD-123	7	3,000	240,000	390 x 270 x 400	9.9
	13	10,000	120,000	375 x 360 x 230	6.5
SOT-143	7	3,000	240,000	390 x 270 x 400	9.0
SOT-723(ESD)	7	8,000	640,000	455 x 270 x 440	10.5
SOT-563	7	4,000	320,000	390 x 270 x 400	10
	13	10,000	120,000	375 x 360 x 230	5.2
SOT-563(ESD)	7	4,000	320,000	455 x 270 x 440	10.8
SOT-553	7	4,000	320,000	390 x 270 x 400	9.4
	13	10,000	120,000	375 x 360 x 230	5.2



Packing Specifications

Package	Reel Size	Reel	Carton	Carton Size	Approx. Gross Weight
	(inch)	(pcs)	(EA)	(mm)	(kg)
Reel Packing					
SOT-523	7	4,000	320,000	390 x 270 x 400	10
SOT-523(ESD)	7	4,000	320,000	455 x 270 x 440	10.8
SOT-363	7	3,000	240,000	390 x 270 x 400	9.3
	13	10,000	120,000	375 x 360 x 230	7.1
SOT-363(ESD)	7	3,000	240,000	455 x 270 x 440	10.1
SOT-353	7	3,000	240,000	390 x 270 x 400	10
	13	10,000	120,000	375 x 360 x 230	7.2
SOT-323	7	3,000	240,000	390 x 270 x 400	7.9
	13	12,000	144,000	375 x 360 x 230	6.1
SOT-323(ESD)	7	3,000	240,000	455 x 270 x 440	8.7
SOT-23 6L	7	3,000	240,000	390 x 270 x 400	14.5
	13	10,000	120,000	375 x 360 x 230	7.9
SOT-23 6L(ESD)	7	3,000	240,000	455 x 270 x 440	15.3
SOT-23 6L-1	7	3,000	240,000	390 x 270 x 400	14.9
	13	10,000	120,000	375 x 360 x 230	8.1
SOT-23 6L-1(ESD)	7	3,000	240,000	455 x 270 x 440	15.7
	13	10,000	120,000	375 x 360 x 230	7.9
SOT-23	7	3,000	240,000	390 x 270 x 400	9.8
	13	12,000	144,000	375 x 360 x 230	7
SOT-23(ESD)	7	3,000	240,000	455 x 270 x 440	10.6
SOT-223	13	2,500	40,000	375 x 360 x 422	14.96
SOT-89(ESD)	7	1,000	80,000	455 x 270 x 440	15.64
SMAF	7	3,000	120,000	390 x 240 x 420	10.9
	13	10,000	160,000	375 x 360 x 422	14.1
SMAF-C	7	3,000	120,000	390 x 240 x 420	10.9
	13	10,000	160,000	375 x 360 x 422	14.1
SMBF	7	1,500	60,000	390 x 240 x 420	9.6
	13	5,000	80,000	375 x 360 x 422	15.6
SMA(W)	7	1,800	100,800	390 x 240 x 420	13
	13	7,500	150,000	355 x 355 x 400	20.45
SMAS	7	2,300	128,800	390x 240x 420	11.5
	13	9,500	190,000	355x 355 x 400	16.1
SMA/DO-214AC	7	1,800	72,000	390 x 220 x 370	9.98
	13	7,500	120,000	375 x 360 x 390	17.35
SMB/DO-214AA	7	800	32,000	390 x 220 x 370	7.69
	13	3,000	48,000	375 x 360 x 390	13.23
SMC/DO-214AB	7	800	24,000	390 x 220 x 370	10.79
	13	3,000	42,000	375 x 360 x 390	17.98
SC-59 (ESD)	7	3,000	240,000	455 x 270 x 440	9.9
DO-41	13	5,000	25,000	340 x 340 x 410	11.04
DO-15	13	4,000	20,000	340 x 340 x 410	11.39
DO-201AD / DO-201AE	13	1,250	6,250	340 x 340 x 410	9.2
DO-218AC / DO-218AB	13	600	24,000	375 x 360 x 230	10.25
P-600	13	800	4,000	340 x 340 x 410	9.85



Packing Specifications

Package	Reel Size	Reel	Carton	Carton Size	Approx. Gross Weight
	(inch)	(pcs)	(EA)	(mm)	(kg)
Reel Packing					
DO-34	15	10,000	50,000	365 x 370 x 410	10.1
DO-35	15	10,000	50,000	365 x 370 x 410	11.2
DO-41G	15	5,000	25,000	365 x 370 x 410	10.9
MICRO-MELF	7	3,000	240,000	390 x 270 x 400	8.8
	13	10,000	200,000	355 x 355 x 400	11.5
QUADRO-MELF	7	2,500	200,000	390 x 270 x 400	13.3
	13	10,000	200,000	355 x 355 x 400	14.9
MINI-MELF/LL-34	7	2,500	200,000	390 x 270 x 400	12.7
	13	10,000	200,000	355 x 355 x 400	14.6
MELF/DL-41	7	1,500	84,000	390 x 270 x 400	18.3
	13	5,000	100,000	355 x 355 x 400	23.5
MDI	13	3,000	48,000	375 x 360 x 390	14.71
MICRO DIP/TDI	7	1,000	40,000	390 x 240 x 420	9.5
	13	4,000	64,000	375 x 360 x 422	17
MBF	13	5,000	80,000	375 x 360 x 390	15.9
SDIP	13	1,500	21,000	375 x 360 x 390	14.31
TO-277	7	1,500	60,000	390 x 240 x 420	12.2
	13	5,000	80,000	375 x 360 x 422	19.1
TO-277A	13	5,000	80,000	375 x 360 x 422	18.52
TO-277B	13	5,000	80,000	375 x 360 x 422	20.6
TO-252	13	3,000	42,000	375 x 360 x 390	18.8
TO-252AA	13	3,000	48,000	375 x 360 x 422	24.16
TO-252AA	13	3,000	42,000	375 x 360 x 390	20.78
TO-263/D ² PAK	13	800	6,400	375 x 360 x 390	14.45
ABS	13	4,000	6,400	375 x 360 x 422	17.8
M4	13	3,000	42,000	375 x 360 x 390	14
M8	13	2,000	16,000	375 x 360 x 390	16.86



Packing Specifications

Package	Box	Inner Box Size	Carton	Carton Size	Approx. Gross Weight
	(EA)	(mm)	(EA)	(mm)	(kg)
Bulk Packing					
DO-41	1,000	198 x 84 x 20	50,000	459 x 214 x 256	19.3
DO-15	1,000	200 x 85 x 25	40,000	459 x 214 x 256	20.7
DO-201AD / DO-201AE	500	200 x 85 x 40	12,500	459 x 214 x 256	15.95
P-600	100	208 x 82 x 40	2,500	459 x 214 x 256	6.83
DO-34	2,000	240 x 90 x 100	120,000	410 x 268 x 345	14.5
DO-35	2,000	240 x 90 x 100	120,000	410 x 268 x 345	17.1
DO-41G	1,000	240 x 90 x 100	60,000	410 x 268 x 345	18.5
TO-220AC	2,000	540 x 145 x 85	8,000	555 x 306 x 200	21.76
ITO-220AC	2,000	540 x 145 x 85	8,000	555 x 306 x 200	19.34
TO-220AB	2,000	540 x 145 x 85	8,000	555 x 306 x 200	22
TO-220AB-L	2,000	540 x 145 x 85	8,000	555 x 306 x 200	24.63
ITO-220AB	2,000	540 x 145 x 85	8,000	555 x 306 x 200	19.58
ITO-220AB-F	2,000	540 x 145 x 85	8,000	555 x 306 x 188	25.5
TO-251AA	8,000	555 x 145 x 87	32,000	570 x 306 x 203	23.87
TO-251AB	8,000	555 x 145 x 95	32,000	572 x 306 x 218	18.64
TO-263/D ² PAK	2,000	540 x 145 x 85	8,000	555 x 306 x 200	18.7
GBU	250	220 x 120 x 43	5,000	510 x 235 x 245	21.5
GBU-2	1,000	485 x 185 x 120	2,000	500 x 200 x 270	12.54
GBL	300	240 x 120 x 35	6,000	510 x 260 x 200	15
GBL-2	2,000	550 x 200 x 122	4,000	565 x 215 x 265	13.15
GBJ	200	200 x 145 x 42	3,000	455 x 220 x 240	14.5
GBJ-2	900	485 x 185 x 120	1,800	500 x 200 x 270	18.2
KBP	500	225 x 160 x 35	7,500	500 x 236 x 196	12.58
KBPF	500	225 x 160 x 35	7,500	500 x 250 x 195	13.3
KBL	200	257 x 125 x 50	3,000	415 x 275 x 300	17.5
KBU	200	274 x 150 x 60	3,000	470 x 290 x 330	23.7
KBJ	200	306 x 108 x 42	2,000	322 x 246 x 252	15
KBJ-2	1,000	550 x 200 x 122	2,000	565 x 215 x 265	13.13
KBJ-P	250	305 x 130 x 45	2,000	327 x 290 x 210	15.05
D3K	500	210 x 155 x 30	7,500	480 x 225 x 170	11.6
DXK	2,800	550 x 200 x 122	5,600	565 x 215 x 265	13.8
TO-3P/TO-247AD	-	-	1,500	530 x 243 x 100	13.9
TO-247AD 2L / TO-3PL	-	-	1,500	530 x 255 x 110	12.2
TO-247AD-2LD	-	-	1,500	530 x 243 x 100	14.35

Packing Specifications

Package	Box	Inner Box Size	Carton	Carton Size	Approx. Gross Weight
	(EA)	(mm)	(EA)	(mm)	(kg)
Tube Packing					
GBJ-1	750	490 x 201 x 104	1,500	505 x 225 x 235	16



Packing Specifications

Package	Tape Space	Ammo	Inner Box Size	Carton	Carton Size	Appox. Gross Weight
	(mm)					
Ammunition Packing						
DO-41	52	5,000	255 x 75 x 150	40,000	339 x 276 x 330	15.9
	52	3,000	255 x 73 x 95	24,000	333 x 281 x 218	8.9
DO-15	52	3,000	255 x 75 x 150	24,000	339 x 276 x 330	13.25
	52	1,500	255 x 73 x 95	18,000	339 x 276 x 330	8.64
DO-201AD / DO-201AE	52	1,250	255 x 75 x 150	10,000	339 x 276 x 330	13.36
	52	750	255 x 75 x 95	9,000	339 x 276 x 330	11.62
P-600	52	400	255 x 75 x 150	3,200	339 x 276 x 330	8.1
DO-34	52	5,000	248 x 80 x 75	100,000	410 x 268 x 345	13.1
	26	5,000	248 x 80 x 48	150,000	410 x 268 x 345	15.3
DO-35	52	5,000	248 x 80 x 75	100,000	410 x 268 x 345	15.7
	26	5,000	248 x 80 x 48	150,000	410 x 268 x 345	17.5
DO-41G	52	2,500	248 x 80 x 75	50,000	410 x 268 x 345	16.4
	26	2,500	248 x 80 x 48	75,000	410 x 268 x 345	17.8