

MIL-LINE PRECISION CARBON FILM RESISTORS

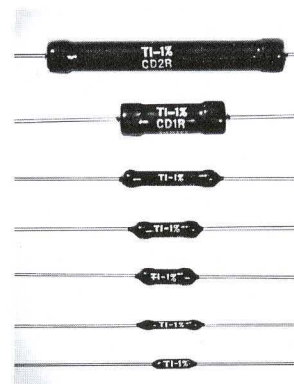


Meet or exceed all requirements of Specification MIL-R-10509B for Characteristic X

NEW IMPROVED DESIGN

Full rated load at 70°C ambient (formerly 40°C)
 High degree of stability and reliability
 Precision resistance — ± 1% tolerance
 Exclusive tough multi-coat synthetic seal

Insulation resistance greater than 50,000 megohms
 Withstand moisture, shock and abrasion



½ ACTUAL SIZE

MIL-LINE PRECISION CARBON FILM RESISTORS
 BULLETIN NO. DL-C 1073 MAY 1959
 REPLACES BULLETIN NO. DL-C 865 MARCH 1958

specifications

TI type number	wattage rating — watts	MIL designation	standard resistance ranges	max. recommended voltage — volts	body length — inches	body diameter — inches	lead length — inches	lead diameter — inches	awg #	avg. weight per 100 unpacked units — lbs.
CD½R	½	—	10 Ohm-1 Meg	350	0.325 (±0.050)	0.095 (±0.015)	1.550 (±0.062)	0.025	22	0.073
CD¼R	¼	RN10X	10 Ohm-1 Meg	500	0.480 (±0.050)	0.095 (±0.020)	1.562 (±0.062)	0.025	22	0.079
CD½PR	½	RN15X	10 Ohm-3 Meg	650	0.455 (±0.050)	0.160 (±0.025)	1.562 (±0.062)	0.032	20	0.158
CD½MR	½	RN20X	10 Ohm-5 Meg	750	0.530 (±0.050)	0.160 (±0.025)	1.562 (±0.062)	0.032	20	0.166
CD½SR	½	—	50 Ohm-10 Meg	850	0.800 (±0.050)	0.160 (±0.025)	1.562 (±0.062)	0.032	20	0.201
CD1R	1	RN25X	10 Ohm-10 Meg	1000	0.915 (±0.050)	0.300 (±0.025)	1.562 (±0.062)	0.032	20	0.647
CD2R	2	RN30X	50 Ohm-50 Meg	2000	2.050 (±0.050)	0.300 (±0.025)	1.562 (±0.062)	0.032	20	1.243

commercial symbolization

Standard symbolization for ½, 1 and 2 Watt resistors includes TI Type Number, Resistance Value, and Resistance Tolerance.

Standard symbolization for ¼ and ⅛ Watt resistors includes Resistance Value and Tolerance.

military symbolization

Per MIL-R-10509 — Resistors, Fixed Film (High Stability)

All resistors are calibrated at 25°C. Resistance values are available expressed to a maximum of three significant figures.

modifications available on request

Kel-F or VINYL Sleeving
 ± ½, 2 or 5% Resistance Tolerances
 Resistance Values Outside Published Ranges

TI carbon film resistors are manufactured under license agreement with the Western Electric Company.

SEMICONDUCTOR-COMPONENTS DIVISION

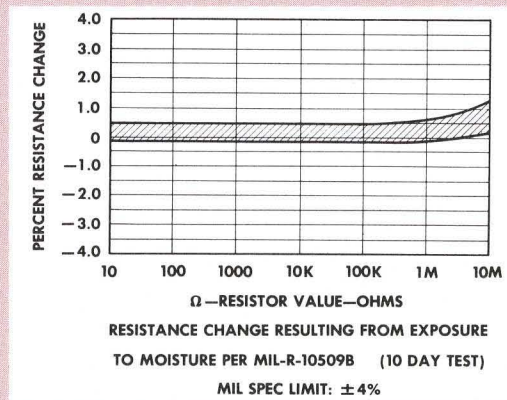
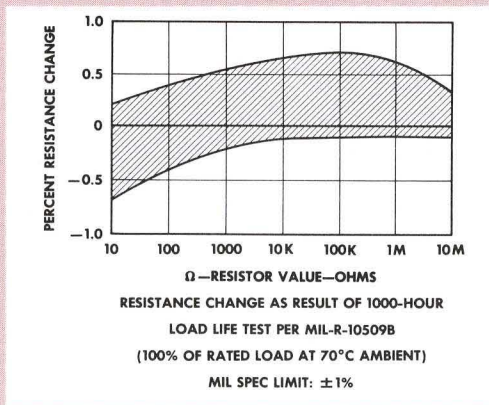
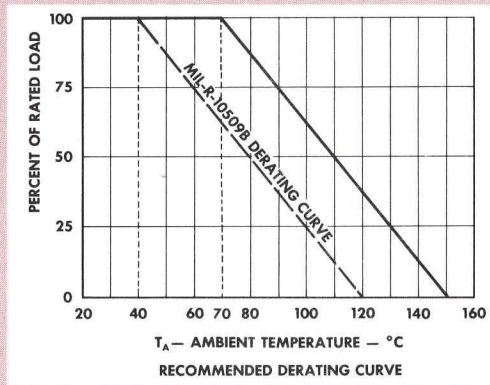
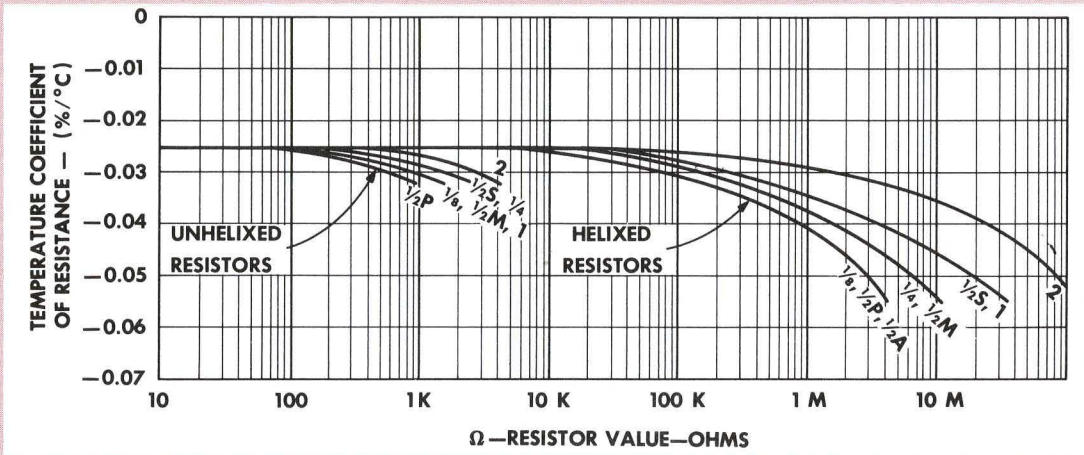
TEXAS INSTRUMENTS
 INCORPORATED
 SEMICONDUCTOR-COMPONENTS DIVISION
 POST OFFICE BOX 312 · 13500 N. CENTRAL EXPRESSWAY
 DALLAS, TEXAS

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TYPICAL CHARACTERISTICS

test	average performance of TI resistors*	limits MIL-R-10509B
Temperature Cycling per Mil-R-10509B (4.6.3)	0 to -0.15%	± 0.50%
Low Temperature Exposure per Mil-R-10509B (4.6.4)	Less than ± 0.10%	± 0.50%
Short Time Overload per Mil-R-10509B (4.6.5)	Less than ± 0.10%	± 0.75%
Effect of Soldering per Mil-R-10509B (4.6.8)	Less than ± 0.10%	± 0.50%
Vibration	Less than ± 0.10%	No requirement
Shock	Less than ± 0.10%	"
Acceleration	Less than ± 0.20%	"
Shelf Life, change per year	Less than ± 0.10%	"
Insulation Resistance per Mil-R-10509B (4.6.7)	Greater than 100,000 Megohms	"
Voltage Coefficient	Less than 0.002%/Volt	"

* Unless otherwise noted, data is % change in total resistance.



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